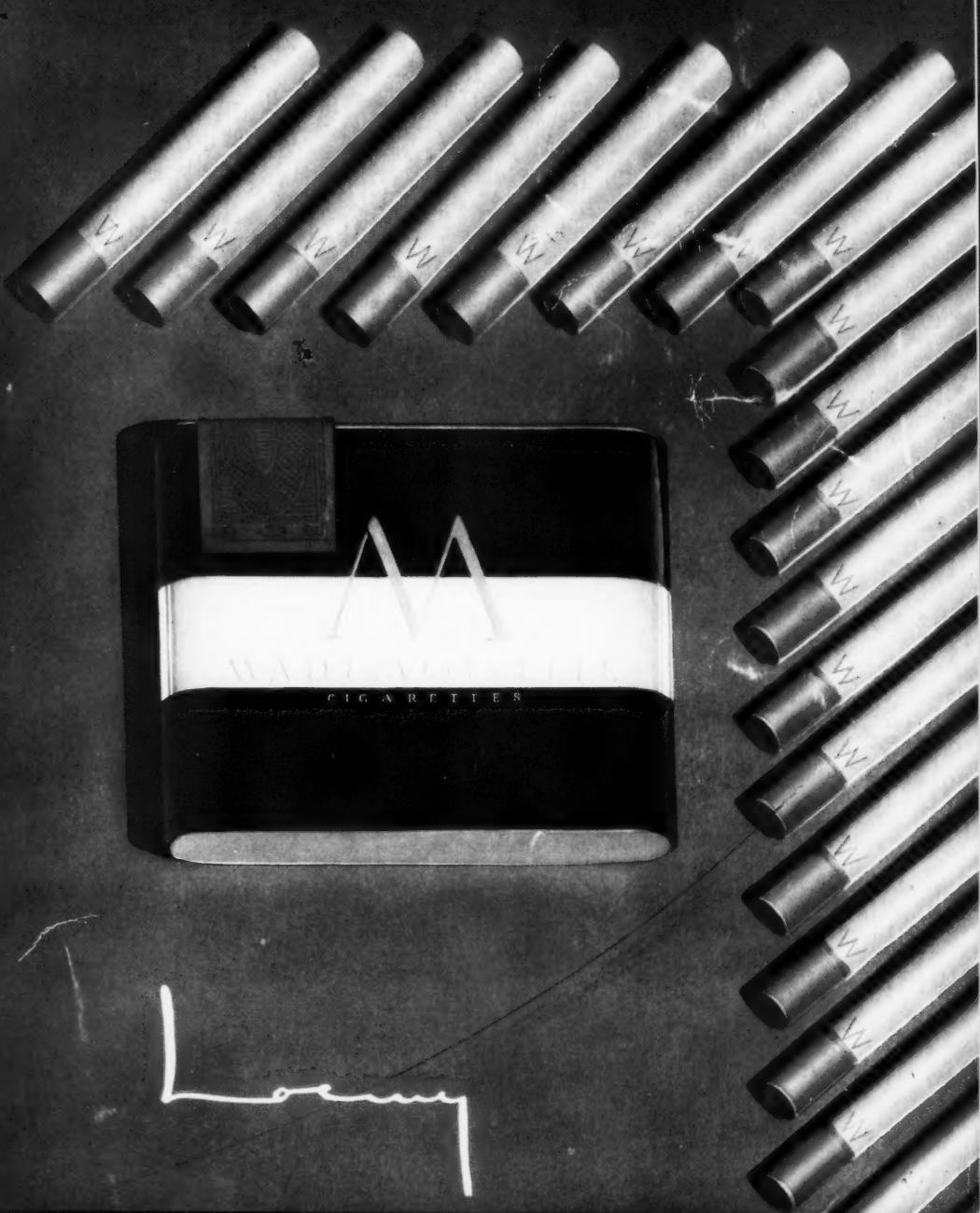


Modern packaging

For cover story see p. 105

May 1948



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SERVICE is the golden rule of business. It is appreciation of the value of a customer, and consideration of his needs. Service is a friendly practice that works two ways: The organization with a background and record of service is usually first in a customer's favor because it puts the customer first in its thinking. Phoenix Metal Cap Co., Chicago 8 and Brooklyn 18.

Modern packaging



Vol. 21 No. 9 May 1948

GENERAL

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A year of increasing competition demands quality packaging and careful attention to practical, useful merchandise.			
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Filled and capped tubes of MOLLE are placed in pockets of intake conveyor. Machine feeds cartons from magazine, expands them into shape, inserts tubes, and closes carton by tucking in the end flaps.

It's simple to adjust Redington Type 23. The machine is instantly ready for processing new sizes by simply moving numbered parts to proper markings. Thus, the makers of MOLLE Shaving Cream eliminate time-consuming change-overs that hamper production flexibility!

An outstanding development is the adjustable pockets of the conveyor which are constructed in two pieces, each separately mounted on its own chain. By merely

turning a sprocket, all pockets are simultaneously changed to accommodate the size desired!

One of the outstanding features of this Redington machine is its *continuous loading mechanism*. Tubes are inserted into cartons gently—at a fraction of the speed of the machine! Other fine features of Redington Type 23 High Speed Cartoners include turned and ground shafting, self-aligning roller bearings, and skip-carton device.

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INCENTIVE TO ACTION

FOUR OUT OF FIVE of the 185 exhibitors at last month's Packaging Exposition—leaders among those companies who sell their products and services to package users—agree that there has been a shift to a buyer's market in business generally, according to a poll taken by the American Management Assn. The remaining 20% expect such a shift to occur in the next six to nine months. Three out of four cite price reduction as the point most emphasized by their customers.

Yet 74% of the suppliers look for greater demand than ever for packaging materials this year and 63% predict greater demand for packaging machinery. Four out of five reported that their business volume had risen an average of 30% in the last year and more than half expect it to increase further, by an average of 20%, in the coming year.

What's this? Can a buyer's market mean good business?

In packaging a healthy buyer's market has always been a time of greater activity. When the seller can sell on his own terms, there is no compulsion toward cost cutting. When the consumer will buy anything that is offered, the usual incentives toward improving the package are lacking. It is a credit to the farsightedness of most packaging companies that package improvement has not actually been at a standstill in the last three years.

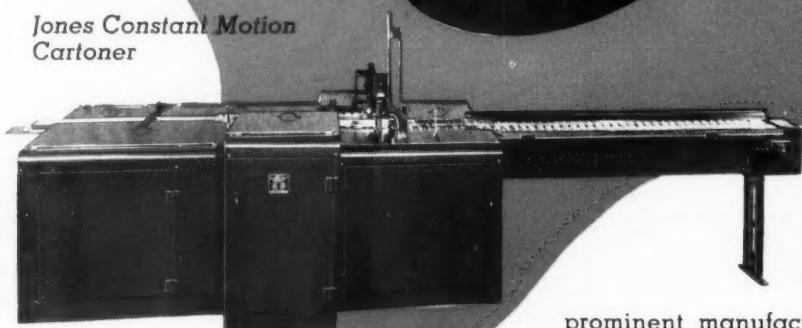
With the farsighted companies, package improvement never ceases. With others, it now becomes a must. With everyone, the necessity for paring cost through the use of the most advantageous machinery, methods and materials becomes particularly urgent.

That's why we think the AMA's respondents are right in predicting that even through a temporary recession in general business activity (two out of three expect it), the business of packaging will be busier than ever—back in its traditional pursuit of marketing more products in better packages at lower cost.

The Editors

**SAVED:
\$68.64 per day
on cartoning costs!**

Jones Constant Motion
Cartoner



Converting from a hand-loading line to Jones Constant Motion Cartoning, a prominent manufacturer reports reducing his cartoning costs from \$89.60 to \$20.96 per day.

Now, one Jones Cartoner is used to carton the daily output of 400 gross. The machine feeds and opens the carton, gradually inserts load into the carton, and closes and tucks both carton ends. When required, a speed of 140 packages per minute is used.

The product is cartoned better and faster. Human error is eliminated—empty or defective cartons cannot pass through the machine. Unit loading costs are reduced to an absolute minimum.

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CINCINNATI, OHIO

THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED



How good are they when new?

New ideas are often assumed to be better than old ones—just because they're new.

But this is not how packaging ideas are judged at Canco.

For instance—the basic idea of the modern, sanitary-type food can was in the experimental stage in 1898 and perfected by Canco in 1906.

Yet this same idea solved the problem of putting motor oil in cans some twenty years later.

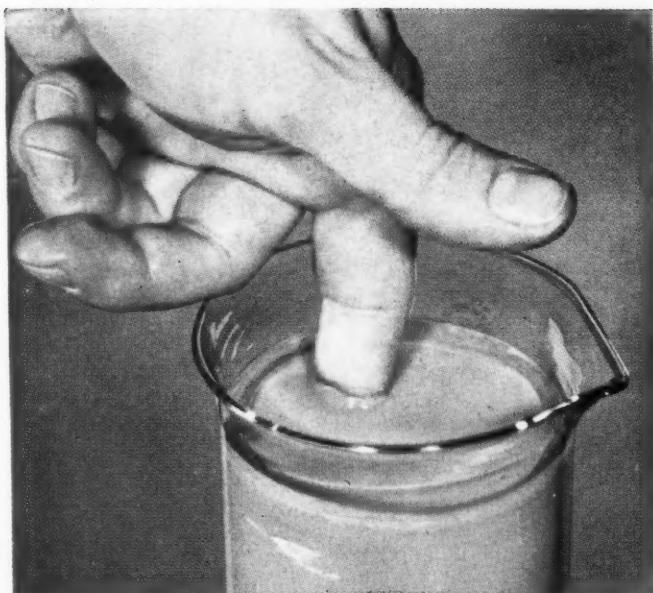
Later it also made possible the packaging of anti-freeze, chocolate syrup, and many other familiar products.

So-called "old" ideas, *like this one*, are not judged on their age at Canco.

In fact, all packaging ideas are judged by us solely on their suitability to the problem at hand.

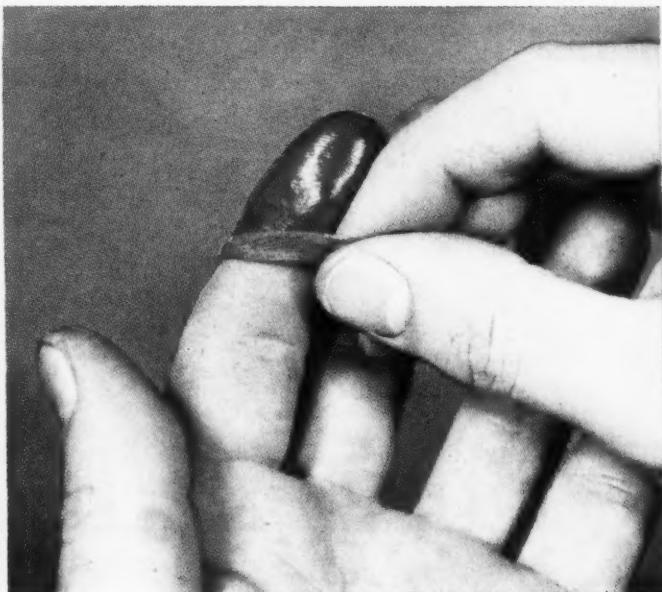
This attitude has helped us achieve an impressive record for our customers since 1901. With the same purpose in view, we shall be glad to discuss your packaging problems.

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The deposited film is flexible, but contains no plasticizer. It is odorless, resistant to grease, and has low moisture vapor transmission. It won't support a flame. Adheres readily to paper, wood, fiberglas, and textiles.

A distinct advance, a cost-cutter, a product-improver, you will agree—and we'll be glad to send our special bulletin giving complete details. We make no finished products from Geon Latex 31X or any of our other

raw materials. We are interested, however, in any problems or special applications. For the special bulletin, please write to Department S-3, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio.



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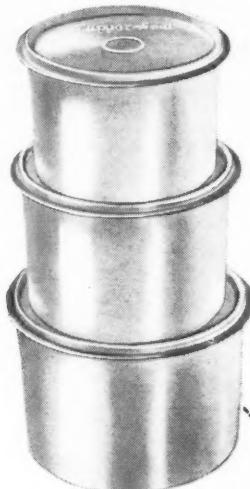
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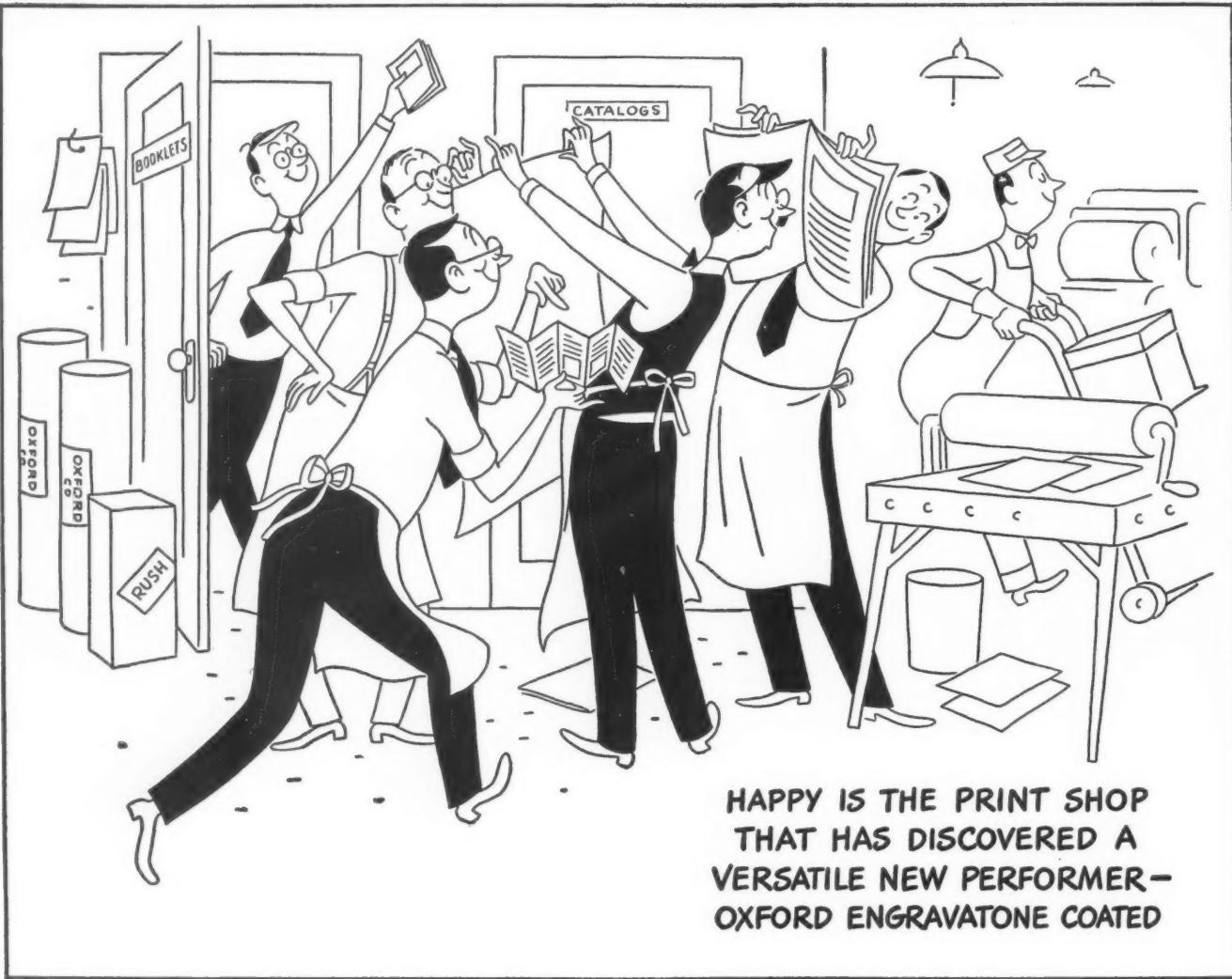
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by Tony Barlow



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Then and only then is this fine printing paper ready to meet Oxford's high performance standards.

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Everything is better in

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against air,
moisture, liquids

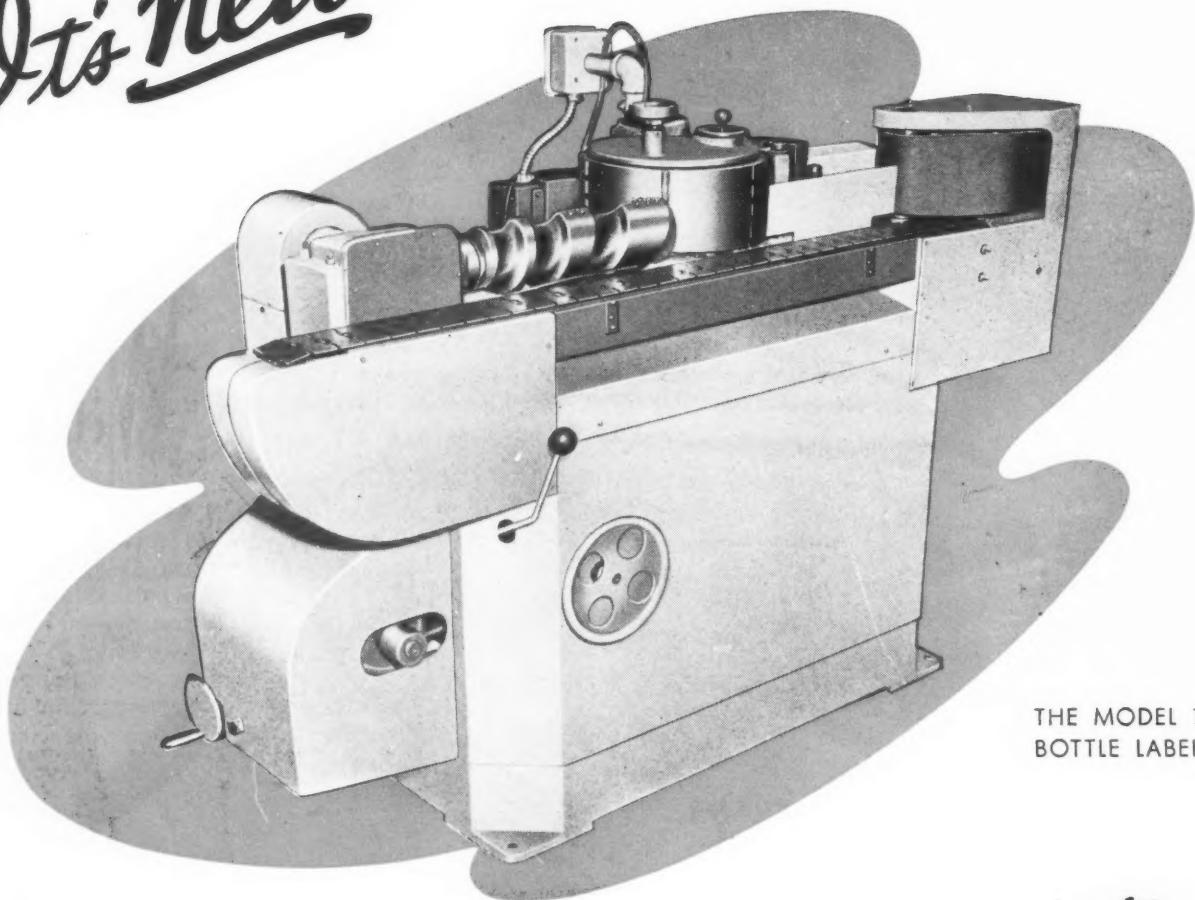
THE ANSWER TO PACKAGING PROBLEMS FROM A TO Z —

Whether you're packaging aspirin, zwieback or any moisture-sensitive product, you'll benefit by PLIOFILM's three-fold protection against air, moisture, liquids. You'll step up sales, too, because PLIOFILM protection is a guarantee of quality every shopper recognizes. For information, write: Goodyear, Chemical Products Division, Pliofilm Dept., Akron 16, Ohio.

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REYNOLDS "PLY-SEAL" PAK
THE NEW ALUMINUM "CIGARETTE CASE"**

...Armor-Clad Packaging Protection the Cigarette Industry has sought for years... the humidor "Cigarette Case" that seals in Freshness and Aroma.

Out of the vast research of Reynolds comes a new pack... world's largest producer of...

the enemies of cigarette freshness and flavor.
Experts recognize that a solid sheet of aluminum, if properly sealed, can prevent the escape of moisture which means... that it can...

Reynolds has developed a technique of electronic heat-sealing...

**THE REVOLUTIONARY NEW PACKAGE
THAT'S AN ALUMINUM "CIGARETTE CASE"
■ GIVES DOUBLE THE FLAVOR AND EXTRA
FRESHNESS... YET COSTS YOU NO MORE!**

Pick up, then open this pack and feel the smoothness and firmness of aluminum. You'll find every RALEIGH "903" factory-fresh and full flavored. And you will serve them from a handsome "cigarette case" ideal for a man's pocket or a lady's handbag. As the pack is used, the aluminum molds

neatly to the reduced size. At the same time it molds tight against the ends of the cigarettes, reducing the sifting of tobacco and the loose fragments that get on tongue and lips. You enjoy not only a factory-fresh but a factory-perfect cigarette... neat, round, tight at the ends!

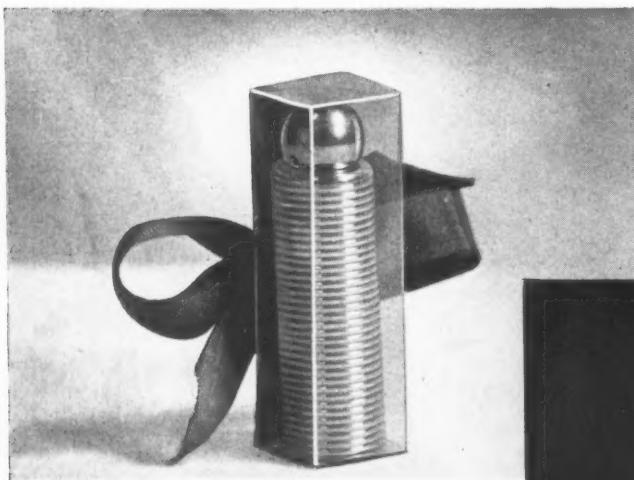
The new "Ply-Seal" Pak is a notable example of Reynolds advanced techniques in designing, sealing and printing aluminum. These skills, plus quality and variety of materials, have long established Reynolds as a consistent supplier to the tobacco, food, dairy, confection, and beverage industries. The "Ply-Seal" Pak was made possible only by Reynolds development of electronic heat-sealing equipment used in connection with standard automatic wrapping machines. It is the first significant advance in cigarette packaging for many years. Meanwhile, consumer preference grows. With Reynolds Wrap and Reynolds Frozen Food Wrap, aluminum enters the kitchen in handy rolls. Its superior protection is demonstrated daily, intimately. Let our experts help you keep ahead in package and label appeal. Reynolds Metals Company, Richmond 19, Va.



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made Aluminum
Competitive...
take advantage of it!

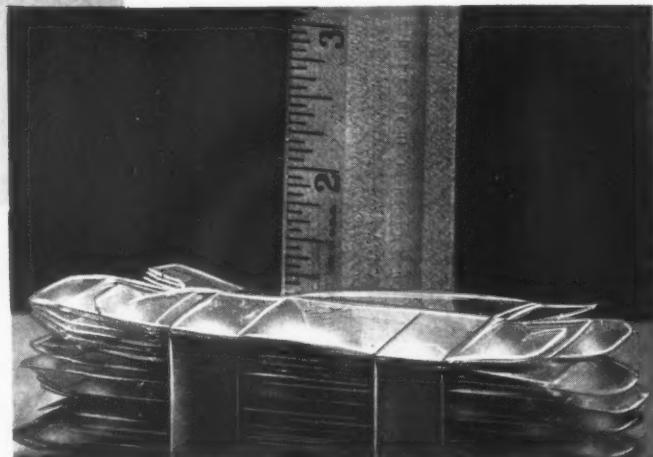
Reynolds Aluminum Foil

Harriet Hubbard Ayer chooses the new **Plastafol*** **Carton**



Here are **50** **folded flat!**

Yes, 50 of these amazing rigid cartons fold to make a pile little more than one inch high! Savings in freight . . . storage!



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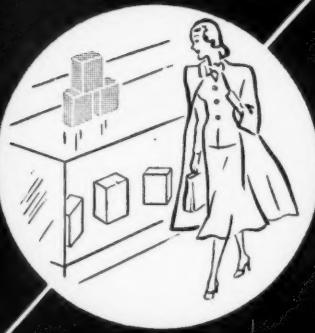
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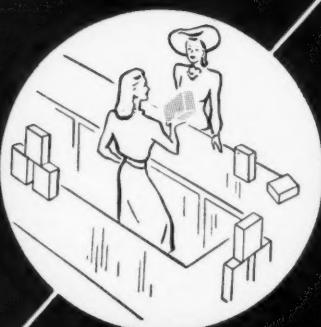
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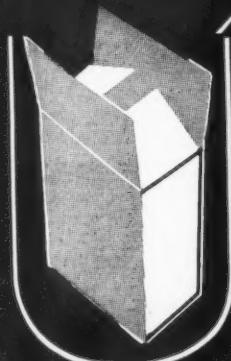
...eye appeal



...sales appeal



...quality appeal



Light reflecting Aluminum Foil makes your product SPOTLIGHT itself on the shelf...makes it BEAM an invitation to buy! Foil Cartons are attractive...have SALES APPEAL...create a super-quality impression...give solid product protection. Let our engineers show you how Foil Cartons can help your sales curve in the coming buyer's market. Write us today for information, samples and ideas regarding Foil Cartons.

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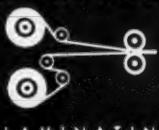
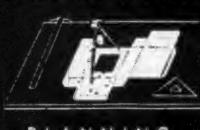
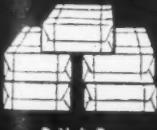
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FROM PULP TO PACKAGE



PACKAGE



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largest cereal companies
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regularly

In one field after another, you will find that most of the sales leaders are regular Riegel customers. They buy from us simply because they know we can make packaging and industrial papers that combine technical excellence with economy and production efficiency. Their confidence in Riegel is an important reason why your company—whether large or small—should see if we can also help you. Riegel Paper Corporation, 342 Madison Avenue, New York 17, N. Y.

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REG. U. S. PAT. OFF.

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2. THE TAMPERPROOF "Cel-O-Seal" band is an eye-catching label that guarantees genuineness. Nothing can get into the container—just as nothing can leak out of it.



3. THE RUBBER CLOSURE on this multiple-dose vial is sealed in place by "Cel-O-Seal." Thus the user is assured of pharmaceutical purity throughout the life of the container.



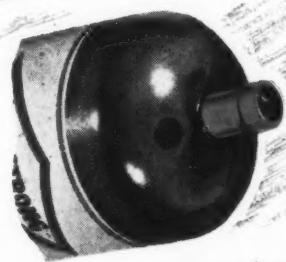
4. FOR RE-USE CONTAINERS, "Cel-O-Seal" makes an ideal closure. Available in a wide range of sizes, it can be used with plastic, glass, porcelain, metal, cork and paper materials.



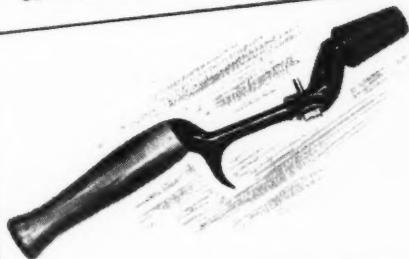
5. CLOSURE ATTACHMENTS are held securely by "Cel-O-Seal." This recipe booklet is bound to stay in place. There's no chance for it to slip off or obscure the label.



6. A PREMIUM EXCHANGE TOKEN that can't be illegally duplicated! Housewives simply retain the "Cel-O-Seal" band to cash in on premium offer made by this manufacturer.



7. SCREW-VALVE CLOSURE can't come open in transit or as a result of tampering. This aerosol dispenser is an example of how makers of new products find new uses for "Cel-O-Seal."



8. PROTECTION AGAINST SOILAGE in store is assured by the transparent "Cel-O-Seal" band around the cork grip of this fishing-rod handle. The grip remains clean and fresh.



9. THE TAX STAMP is kept in place, even after bottle is opened, by this special "Cel-O-Seal" Wind-O-Band* seal, which has transparent windows to display and protect the stamp.

10. THE 10th WAY? We're leaving it up to *you*...to determine how you can profit by the all-round advantages of "Cel-O-Seal." Quick and easy to apply... forms a strong, tight seal... available in colors and color-combinations... can be indelibly printed with *your* message.

Send us a sample of your package. We'll return it promptly, sealed for sales with "Cel-O-Seal!" E. I. du Pont de Nemours & Co. (Inc.), 2494-A Nemours Bldg., Wilmington 98, Delaware.

*Trade Mark



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...THROUGH CHEMISTRY

DU PONT "CEL-O-SEAL" BANDS



Just starting out?



Every product had its *start* at some time or other; whether modestly or on a grandiose scale—whether thoughtfully or misguidingly. The successful products were those wherein packaging was thoroughly and skillfully planned *at the outset!* Many mistakes and misguidings can be avoided in the beginning by turning to those who know how—to a carton manufacturer who is competent in the field of Folding Paper Cartons. Ace Carton Creations have proved this! • We can be helpful to you!

ACE CARTON CORPORATION

FOLDING PAPER BOXES • FOLDING DISPLAY CONTAINERS

5800 WEST 51st STREET, CHICAGO 38, ILL. • TELEPHONE PORTSMOUTH 1111

For Efficient Packing . . . For Sales . . .



GLASS CONTAINERS



HAZEL-ATLAS GLASS COMPANY WHEELING, W. VA.

Want to see your filling machine





performance CLIMB?...

**THERE'S A GOOD CHANCE THAT IT WILL—WITH
GARDNER-RICHARDSON CARTONS. THEY'RE PRECISION-
ENGINEERED FOR EXTRA SPEED, LESS WASTE**

Suppose you could step up the speed of your automatic filling machines 5, 10, 15%. Would that be worthwhile? Figure out what it would mean in dollar savings, in extra production.

Some of the nation's largest users of folding cartons have done that kind of figuring. They've called in Gardner-Richardson to team up with their operating men. And that kind of teamwork has produced some surprising results. Frequently changes that looked trivial when recommended, have proved of tremendous importance. Together

with the Precision-Engineered uniformity of Gardner-Richardson cartons, they've often led to a sharp climb in filling machine production, a sharp drop in spoilage and waste.

Can we make your filling machine production climb the same way? We think there's a good chance that we can. All we ask is an opportunity to study your cartons, your specifications and your operations. Give us the word. We'll send a Gardner-Richardson representative to call. Without obligating you, of course.



**And remember . . . More eyes reach for your product in
cartons of COATED LITHWHITE!***

Coated Lithwhite is the quality clay-coated board . . . PLUS! Made the modern way, with an exacitly level filmed-on coating. Whiter. Brighter. Holds up colors brilliantly, reproduces pictures with true-to-life realism. Folds, bends better, too. More receptive to adhesives. Rub-resisting. Fade-resisting. For a practical way to upgrade your cartons, investigate Coated Lithwhite.

THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

*Reg. U.S. Pat. Off.

Sales Representatives in Boston, Chicago, Detroit, New York, Philadelphia, Pittsburgh, St. Louis

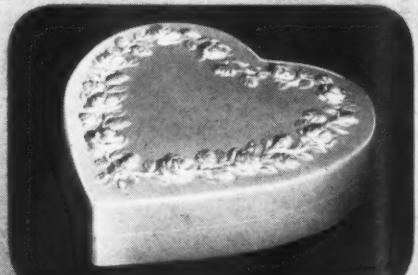
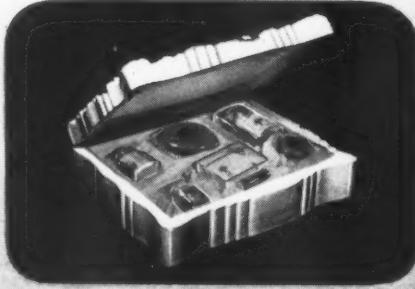
Beautiful RE·USE GIFT CONTAINERS



THE HALLMARK OF FINE PACKAGING



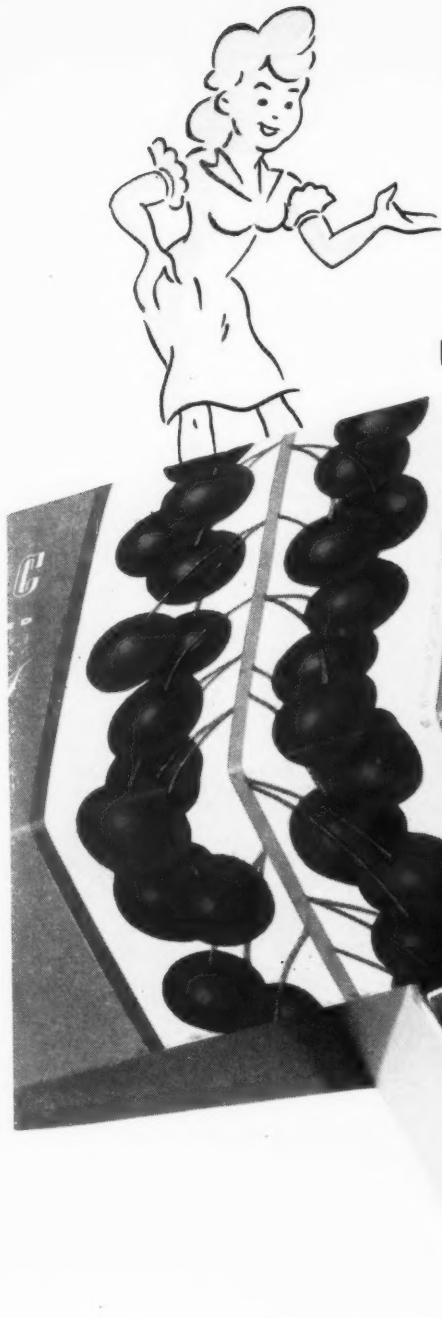
A Rich, Leather-like "Chest" of substantial size and construction — yet amazingly low cost. Another example of GUILDCRAFT Re-Use Gift Packaging understanding and fabricating know-how. No matter what your product, you'll find GUILDCRAFT custom-built containers well worth while investigating. Write or wire us.



DESIGNERS • FABRICATORS IN PLASTIC • LEATHERETTE • METAL

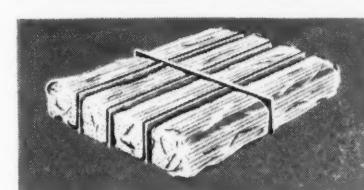
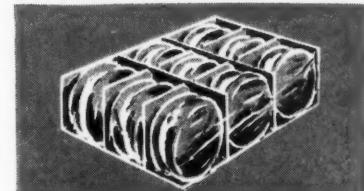
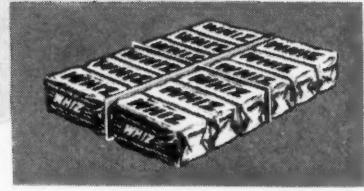
FREDERICK A. KRAUSE and ASSOCIATES

8 SOUTH DEARBORN STREET • CHICAGO 3, ILLINOIS



PACKAGING BY
MEANS

**PROTECTION
PLUS SALES APPEAL**



Brach's luscious chocolate covered cherries reach the consumer in perfect condition in Traver's Loxtite partitions. Each piece of candy rides safely in style in its individual compartment. Why not make sure that your product reaches market in the same perfect condition by investigating the possibilities of Traver's Loxtite partitions for your particular package. Loxtite partitions are ideal for all types of external and internal packaging of fragile articles.

Sales Offices in Chicago, New York,
Philadelphia, Pittsburgh, Cleveland, Kansas
City, St. Louis, Dallas, Detroit, Oakland

Write or wire for information.



TRAVER CORPORATION, 366 W. ONTARIO ST., CHICAGO 10, ILLINOIS

CONVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS, ACETATES, FOIL AND GLASSINE

MAY 1948

25



SURE IT'S WAXED PAPER. And Champlain Rotogravure Presses produce equally striking results on many other functional wrapper stocks, too! Gossamer-thin cellophane or tissues, carton stocks, glassines or foils—pick the one that's best for your product's appearance and protection and Champlain Rotogravure Presses do the rest with push-button ease.

SURE IT'S COLORFUL. Birds Eye wrappers show the product in mouth-watering full color—still they're printed fast by Champlain Rotogravure. The exclusive fully enclosed Speedry ink fountain permits Champlain Presses to use instant-drying inks and lacquers and to deliver rewound or sheeted ready for immediate fabrication. Standard Champlain embossers, perforators, scorers, punches, glue applicators—built to the same precision standards as the press itself—can be built in line for specialized long run production.

SURE REGISTER'S SUPERB. Champlain's 360° running register control—push button operated—corrects color register instantly. The micro-fine screen of rotogravure—and Champlain's method of ink

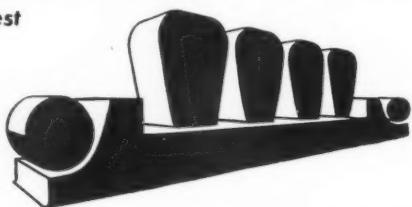
consistency control—retain delicate tonal gradations of original copy with utmost fidelity.

YES — GRAVURE COSTS LESS. Rotogravure—long known as the quality process—actually costs less. Champlain Presses are precision-built—yet priced to compete with equipment they far excel in versatility and speed. Send samples of your present labels, wrappers or inserts for a specific analysis of what Champlain Rotogravure can do for you.—Champlain Company, Inc., 88 Llewellyn Ave., Bloomfield, N. J.

Chicago Office: 7 West Madison St., Chicago 2, Ill.

CHAMPLAIN
ROTOGRAVURE PRESSES
rotogravure at its best

Speedry



On rotogravure presses up to 36" width, the patented Weiss-Speedry ink fountain is an exclusive Champlain feature.



EYE APPEAL MEANS BUY APPEAL



Your product may be excellent and its price in line with competition, but, if your package has no eye appeal, the customer may bypass your product and take your competitor's attractive package.

MORAL: "INCREASE EYE APPEAL!"

Use

Matthias Box Coverings

Imported and Domestic Papers

For Your 1948 Packaging Program

Brilliant Colors and Designs

Sample Books Available



MATTHIAS PAPER CORPORATION

Main Office, 165 W. Berks St., Philadelphia 22, Pa.—Tel. REGent 9-5301



New England—12 Brook Street, Wellesley, Mass.—Telephone Wellesley 5-0098M
(Mail Address, Box 127)



New York City—Room 313E Hudson Terminal Building, 30 Church Street, New
York 7, New York—Telephone BEekman 3-4573



Southern Address—Room 602 Guilford Building, Greensboro, N. C.—Telephone
Greensboro 3-3177.

*TEXACO-first
to use improved
grease-tip tube*

WIRZ

**TEXACO
OUTBOARD
GEAR
LUBRICANT**



TEXACO Outboard Gear Lubricant will eliminate unnecessary drag on the engine, thereby insuring full power output and higher R.P.M. This lubricant is waterproof. It is free from artificial materials. It resists the tendency to leak out of the housing. Use it to protect gears in fresh or salt water.

Manufactured by
THE TEXACO COMPANY,
U. S. A.

Capacity 15 oz. net. 0.405 lbs.

for safer, easier, faster
outboard motor lubrication

TEXACO, always alert, was quick to see the WIRZ collapsible metal tube with improved grease tip would prove a boon to outboard motor enthusiasts.

The new nozzle prevents backfire, cuts time and lubrication losses, increases convenience in use. Tapered and long enough for most outboard motors, the improved grease tip fits snugly, makes outboard lubrication safer, simpler, speedier. Will fit into opening diameters from 10/64" to 13/32". The molded plastic closure picks up the attractive red of the Texaco Star. The new package with its increased convenience feature won instant favor.

Specialists in collapsible metal tubes and plastic closures, WIRZ may be able to help you, too, gain greater protection, convenience and appeal for your creams, pastes, powder, liquids. Let us discuss the possibilities. Write today.

A. H.

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Los Angeles 14, 1707 W. 8th St.
Bogotá, Colombia
Av. D. Spiller—Av. Republica 0178—Alto Bonville, Cali.

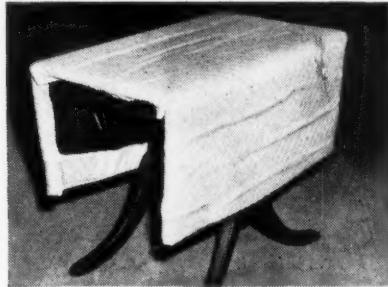
Export Division
755 Drexel Bldg., Philadelphia 6, Pa.

Fourth & Cole Sts. • CHESTER, PA.

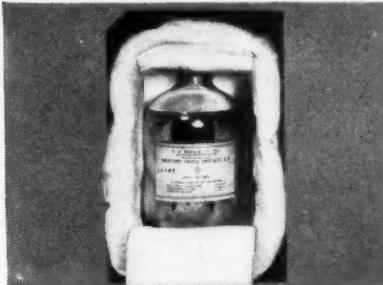
Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding



Cloud-soft KIMPAK shields this unwieldy dispenser from damage during shipment. Photo courtesy Temprite Mfg. Co., Inc.



Surface Protection — Drop-leaf table. Photo courtesy Phoenix Chair Company.



Flotation Packaging — Mercury bottle. Photo courtesy F. W. Berk & Company.

Kimpak^{*} Float Packaging

bundles of protection
for every product you pack

Ship confidently and save—thanks to reliable, low-cost KIMPAK^{*} creped wadding. A versatile, efficient cushioning material, KIMPAK provides protection in packaging for the smallest, most delicate items to heavy and bulky products. Made in a variety of types, thicknesses and backings to suit your particular needs. You'll find a specification of cushiony KIMPAK to meet every requirement of the Four Basic Methods of Interior Packaging—Sur-

face Protection, Blocking and Bracing, Flotation Packaging and Absorbent Packaging.

Soft, flexible and feather-light—KIMPAK adds little weight or bulk to shipments. It is made either liquid absorbent or liquid repellent. Highly resilient, it effectively withstands shock and vibration. Spotlessly clean, KIMPAK improves the appearance of any package. No wonder so many fine products are wrapped for market with KIMPAK.

Kimpak

REG. U. S. PAT. OFF. &
FOREIGN COUNTRIES



CREPED WADDING

*T. M. Reg. U. S. & Can. Pat. Off.

Name _____

Firm _____

Type of Business _____

Address _____

City, Zone, State _____



EVERY PACKAGE IS AN EXHIBIT...an advertisement... a sales talk for the product it presents. Basically, that is why all elements entering into the make-up of a package must be right if the package is to fulfill successfully the purpose for which it was created. This means giving equal attention to the selection of design, stock, color and INK.

TODAY, THERE IS MORE THAN COLOR in a printing ink ... there is a wide variety of textures at your command. These new surface effects lend variety and introduce a tactile quality to printing—to supplement the eye-appeal of the color itself. Investigate the properties and possibilities of the many types of ink available. You will find there is a right ink for each particular job.

GENERAL PRINTING INK DIVISION

SUN CHEMICAL CORPORATION • 100 SIXTH AVENUE, NEW YORK 13, N. Y.

GEO. H. MORRILL • FUCHS & LANG • SIGMUND ULLMAN • EAGLE PRINTING INK

AMERICAN PRINTING INK • E. J. KELLY • GENERAL PRINTING INK CORP. OF CANADA, LTD.



Quality

Best materials.

Sound engineering.

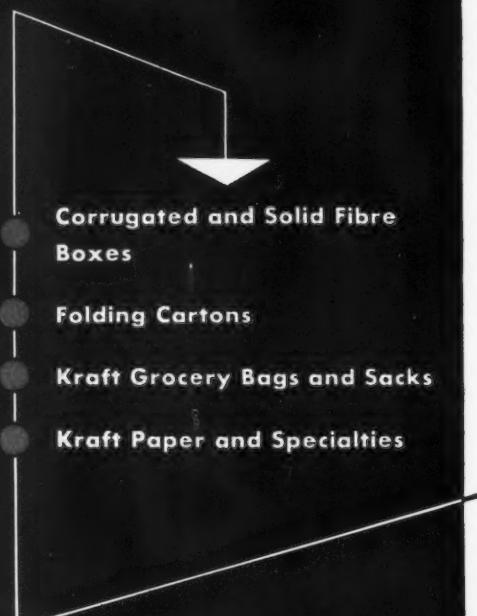
Careful production.

Attractive printing.

Call your nearest Gaylord office

GAYLORD CONTAINER CORPORATION
General Offices: SAINT LOUIS

San Francisco • Oakland • Los Angeles • Portland • Seattle • New York
Chicago • Atlanta • New Orleans • Jersey City • Indianapolis • Houston
Minneapolis • Detroit • Jacksonville • Columbus • Fort Worth • Tampa
Cincinnati • Dallas • Des Moines • Oklahoma City • Greenville • St. Louis
San Antonio • Memphis • Kansas City • Bogalusa • Milwaukee • Chattanooga
Weshaco • New Haven • Appleton • Hickory • Greensboro • Sumter • Jackson



- Corrugated and Solid Fibre Boxes
- Folding Cartons
- Kraft Grocery Bags and Sacks
- Kraft Paper and Specialties



Three points to remember about **EFFECTIVE PACKAGING**

When you choose a packaging material, keep in mind the advice of leading merchandising authorities. They point out that effective packaging must sell as well as protect—must be economical, too.

The transparency of Du Pont Cellophane is a powerful selling force. It sells the shopper through her eyes—the source of 85% of her buying impressions.

The protection of Du Pont Cellophane is chemically tailored to meet a wide range of needs. There are now more than 50 different varieties of DuPont transparent films.

The economy of Du Pont Cellophane represents true packaging savings. It gives you transparent protection *at lowest cost*—operates with high efficiency on automatic packaging machinery.

It's this combination of advantages that makes Du Pont Cellophane the choice of so many leading packagers! E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Del.

DuPont
Cellophane

Shows what it Protects—at Low Cost

DU PONT
REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY



LITHOGRAPHING COLOR ON METAL IS NOT A MATTER OF LUCK...

EXPERT Color Lithography on Metal requires outstanding plate work, superior colors and modern precision presses. Heekin offers you all of these. We can reproduce an orchid on a metal can from its natural color photograph as easily as we can reproduce a pretzel or potato chip. It takes longer—it takes skill to get those delicate textures . . . but here at Heekin we have what it takes to make your metal cans do a sales job.

HEEKIN CANS
WITH HARMONIZED COLORS
THE HEEKIN CAN CO. CINCINNATI 2, OHIO
EXPERT LITHOGRAPHERS OF METAL CANS SINCE 1901





**LET MR. CELLOPHANE GUIDE YOU
TO BETTER PACKAGING**

THE QUALITIES you need for successful packaging are engineered into Sylvania Cellophane. Every step in its manufacture is carefully checked to assure you of maximum dust, grease and moistureproofness. This careful control assures Sylvania Cellophane's uniform transparency and strength . . . low temperature durability . . . heat sealing qualities . . . excellent printing surface.



A boxcar of candy sticks wrapped in Sylvania Cellophane adds up to a package that's a sure winner.

SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N.Y. Plant: Fredericksburg, Va.





... a product looks at its package

... and what does it see? It sees its protector clothed in the shining armor of glossy paper and glittering color. But, most of all, it sees that tough, long-fibred paperboard that really stands the gaff. It also sees the outstanding sales appeal, display space and take-home value of its Old Dominion box. Old Dominion makes every type of paperboard package from product packages, such as set-ups, canisters, convolutes, folding

boxes and acetate containers, to corrugated shipping cartons. This complete package manufacturing has made it possible for Old Dominion to maintain its leadership in servicing outstanding accounts throughout the South Atlantic area.

Give your product the advantage of a complete packaging service which is available nationally.

Send for Standard Line Folder #108.



OLD DOMINION

PLANTS LOCATED THROUGHOUT THE SOUTH

Box Company Inc.
CHARLOTTE, N. CAROLINA

THE SOUTHERN BOX MAKER WITH A NATIONAL REPUTATION

MAY 1948

35

For Consumer Size



Many products such as sugar, flour, rice, salt, beans, corn meal and cereals are packed in Deltaseal Bags with savings in packaging costs that will amaze you.

Your brand will be rich and colorful on the excellent printing surface of Deltaseal Bags.

Deltaseal Bags and the Deltaseal Packaging System permit major operating economies in your plant. Your Bemis representative will give you all the details.

Deltaseal Bags have the handy pouring spout and are available in sizes from 2 lbs. to 25 lbs.

ECONOMIZE WITH

Bemis Deltaseal Bags

THE SMART-LOOKING
PACKAGE WITH
SALES APPEAL

Deltaseal: Reg. U.S. Pat. Off.

BEMIS



BEMIS BRO. BAG CO.

Baltimore • Boise • Boston • Brooklyn • Buffalo • Chicago
Charlotte • Cleveland • Denver • Detroit • East Peppercell
Houston • Indianapolis • Jacksonville, Fla. • Kansas City
Louisville • Los Angeles • Memphis • Minneapolis
Mobile • New Orleans • New York City • Oklahoma City
Norfolk • Omaha • Orlando • Peoria • Phoenix • Salina
Pittsburgh • St. Louis • Seattle • St. Helens, Ore. • Wichita
Salt Lake City • San Francisco • Wilmington, Calif.



measure your package against LAMCOTE competition

Has it sparkle, radiance, gleaming richness? **Will it stay clean and fresh despite rough handling, counter soil, moisture and dust?** Does it protect the contents while it displays and glamorizes them? Is it designed to sell your particular product? Say "yes" every time, with LAMCOTE!

Expect, and get, glistening beauty, radiant protection, irresistible appeal . . . in a tough container that laughs off soil and handling. Count on a package planned to fit your merchandising structure, designed to move your product.

From A to Z, from EYE to BUY, from plan to completed package, Arvey experience puts **more selling power** into every LAMCOTE package.

Stand head and shoulders above competition with a Lamcote package of your own design, or created by the Arvey "package-in-a-package" service that plans, produces and delivers **selling packages**.



G

Chicago
Operell
as City
Minneapolis
City
Salina
Wichita
Calif.

ING

Glamorous protection for the package . . . final persuasion to the eye . . . Lamcote is the tough, lustrous, transparent film of plastic applied by our exclusive process to the surface of paper, board, fabric or other material.

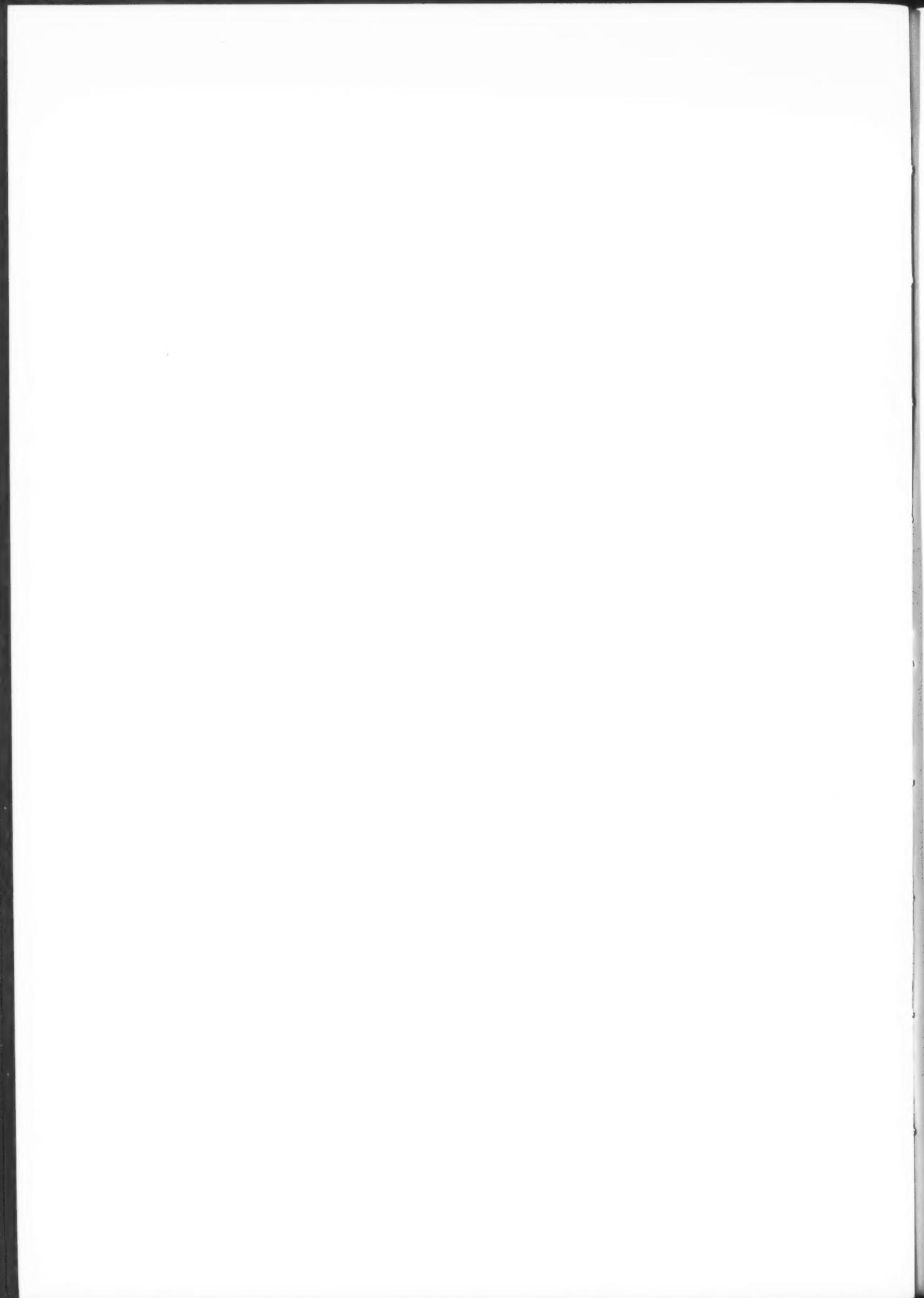
Send us a sample of your merchandise today! We will promptly submit ideas, plans and production costs . . . no obligation.

ARVEY CORPORATION

3460 N. KIMBALL AVENUE • CHICAGO 18

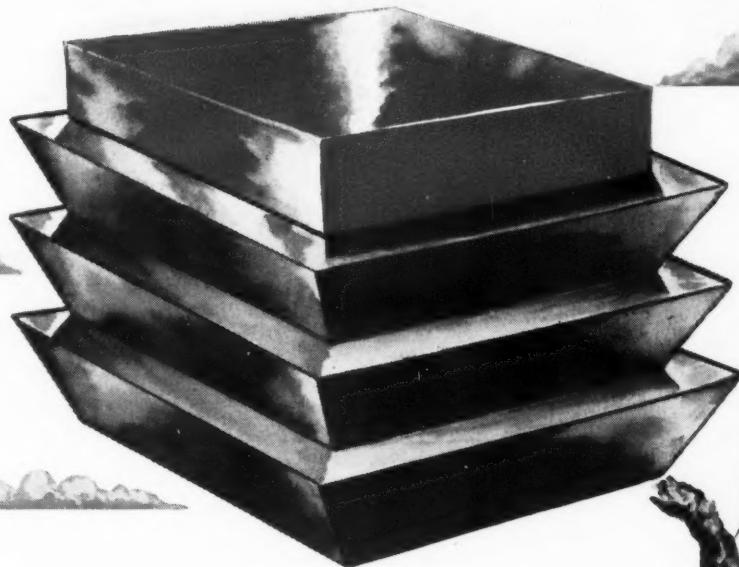


303 COMMUNIPAW AVENUE • JERSEY CITY 4



Out of this World

...BUT DOWN TO EARTH



First the idea . . . to stimulate desire . . . secure conviction; then the ingredients — paper, ink, fabric and craftsmanship — combined in a package that becomes an ambassador-at-large for increased sales.

Partly "out of this world" to stimulate desire . . . "down to earth" to win sales-getting results; that is the kind of packaging you get at **WARNERCRAFT**.

Choose the best . . . choose **WARNERCRAFT**. Write for illustrated packaging handbook.

W
WARNERCRAFT
Finest Name in Packaging

THE WARNER BROTHERS COMPANY

Makers of set-up and folding boxes of all types, transparent acetate containers, hand made specialties, counter displays and dispensers. Main Office and Factory: 325 Lafayette Street, Bridgeport 1, Conn. • New York Sales Office: 200 Madison Avenue, New York 16, N.Y.



Give a confirmed card player a few friends, a tall, cool glass, plenty of smokes, something to nibble on, like a dish full of Teddie Brand salted nuts, and watch the hours fly by. It's a perfect set-up for a perfect evening.

And for perfect sealing, the John W. Leavitt Co. of Boston has selected Crown Screw Caps for their products. Crown Screw Caps perform better on production lines and give a better seal. This is the result of precision manufacture and an exclusive Crown feature, the Deep Hook Thread. This patented thread design assures greater sealing pressure without binding or freezing. It grips under the glass thread of the container and exerts sealing pressure with a positive "down-pull" action. Crown liners play an important part in better sealing, too. They are held to full thickness and made of materials developed for sealing efficiency on individual products. Crown Cork & Seal Co., Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

CROWN CLOSURES

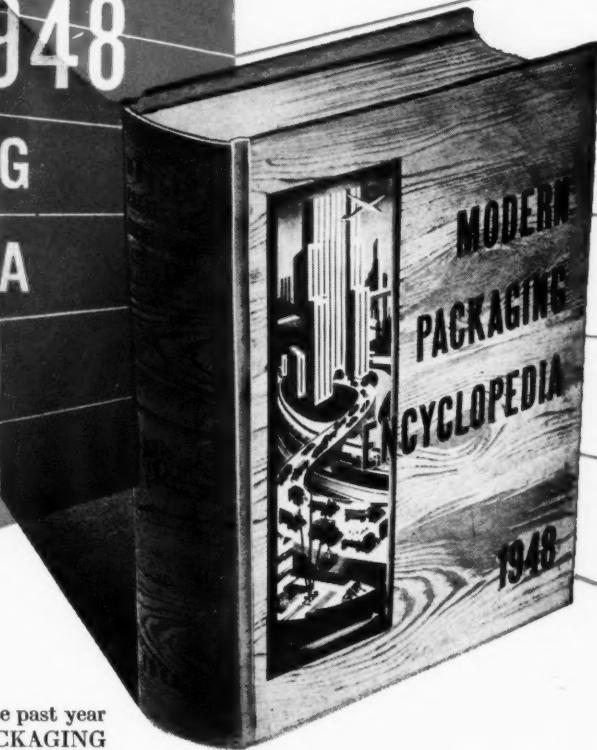
Approved by millions of housewives

NOW HERE!

The new 1948

MODERN PACKAGING ENCYCLOPEDIA

NOW OVER
1,200 PAGES



So vast have been the advances in packaging in the past year that more than 60% of the 1948 MODERN PACKAGING ENCYCLOPEDIA is entirely new. The rest of the standard information has been revised and brought up to date. This means that all previous editions are now obsolete in terms of the latest advances, techniques, materials, supplies and services.

The 1948 MODERN PACKAGING ENCYCLOPEDIA is gigantic in its scope. By using this book, you will put yourself years ahead in experience and knowledge. You can get thousands of ideas from this new book and, bear in mind, that any one single idea could be worth many times the purchase price.

The MODERN PACKAGING ENCYCLOPEDIA is the only reference book which covers all phases of packaging. This book is of such complete scope and the information is of such superb quality that you really must buy and use this book before you can appreciate its value. Remember, there

is no school, college or university where you can study all the aspects of packaging—yet packaging is a \$5,000,000,000 field, according to the U. S. Chamber of Commerce.

The MODERN PACKAGING ENCYCLOPEDIA is a *must* for every department of a business which markets a product. This book shows why packages are successful, how packages increase sales, how production changes can save money, how the package should be designed, how to avoid trouble in considering the legal aspects of the package itself. The 1948 MODERN PACKAGING ENCYCLOPEDIA contains about 670 pages of editorial material, 452 advertisers and a Buyers' Guide of 90 pages. Today's book is a true encyclopedia, authentic in every detail.

Order your copy of the new 1948 MODERN PACKAGING ENCYCLOPEDIA. Clip the coupon and send it right now—while you're thinking about it. There's only a limited number printed and you will want to make sure to receive your copy.

CLIP COUPON NOW FOR YOUR COPY



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Packaging Catalog Corp.
122 East 42nd Street
New York 17, N. Y.

Gentlemen:

I want to keep up to date on packaging so please send me copies of the 1948 MODERN PACKAGING ENCYCLOPEDIA @ \$6.50; Canada \$9.00, including duty and postage; Foreign \$11.00.

Remittance Enclosed

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Type of product.....

20 CHAPTERS

TWENTY chapters of packaging know-how plus the directories of the packaging industry which tell where to buy—all this for only \$6.50; Canada, including postage and duty \$9.00; Foreign \$11.00. Send orders to: Packaging Catalog Corp., 122 East 42nd Street, New York 17, N. Y.

**How the Kidder Aniliner Improves
Printing Quality While Reducing Costs**

*It's Rugged-Fast-Easily Controlled—
Makes a Perfect "Kiss"*

Massively built . . . yet with its great weight properly machined, distributed and balanced . . . the Aniliner runs vibration-free at *high speeds*. And its simple, accessible controls regulate so closely as to achieve the perfect "Kiss" impression that is a necessity for fine aniline printing.

This sturdy American design, created out of the need for such a press, can run continuously at speeds that promise high quality printing, low cost and low maintenance.

**KIDDER PRESS COMPANY, INC.
DOVER, NEW HAMPSHIRE**

A. E. MARCONETTI
11 W. 42nd St., New York 18, New York

MACHINERY SERVICE CO.
P.O. Box 33, Los Angeles 11, California



**The Aniliner is a
"Three-Point Press"**

Kidder Three-Point Presses are so-called because they fulfill the three major requirements for perfect printing. See how these features win for the Aniliner a place in this famous family.



CONTROL OVER THE PAPER. Mill roll and paper in-feed control • Web on continuous are travels paper steadily. Outfeed and Constant Tension Rewind.

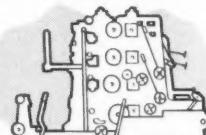


PROPER DISTRIBUTION OF INK. Non-Splash Fountains • Deflection-free Fountain Rolls • Accurate setting of fountain and inking roller contact • Precision adjustment of inking roll against plates • Pressure releases during stops • Inking rolls rotate independently during stops.

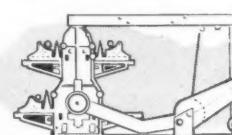


ACCURACY OF THE IMPRESSION. Rugged concentric plate and impression rolls • Precision adjustment of plate-to-web contact • Plate Cylinders lift during shutdown without upsetting adjustment or register.

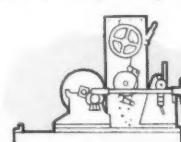
The Kidder Aniliner Bulletin will show you opportunities for high-quality, low-cost Aniline Printing, and describes in detail the latest improvements in these presses. Write for it — no obligation of course.



MULTI-COLOR LETTER PRESSES
for waxed paper, box wrappers, etc., rewound or sheet-delivered — up to 72 inches.



**"ANILINER" and "CELLOPRINTER"
MULTI-COLOR PRESSES**
for decorative papers, cellophane, glassine, etc., — up to 65 inches.



SLITTERS AND REWINDERS
for paper mills, finishing rooms, and small-roll, high-speed slitting — up to 115 inches.

NEW!

NASHUA

"2-Way Stretch"

**RAYON
VELOUR PAPERS**

**...Tractable, Corner-Conforming
Luxury Liners
for Boxes, Cases and Displays**

Easy-to-work-with and manageable, this product-flattering material stretches to a snug fit of irregular contours. Basic strength of stock plus "give" due to stretch in both directions permits of cloth-like moulding at lower cost and with a minimum of adhesion problems.

These new Velours can be supplied in any color in minimum quantity of 7500 yards in widths up to 40"—and in two types of backing as illustrated by the samples.

Standard grades with either cotton or rayon flocking can now be furnished in widths up to 54".

**NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE**



▲ D 1337

◀ D 1341

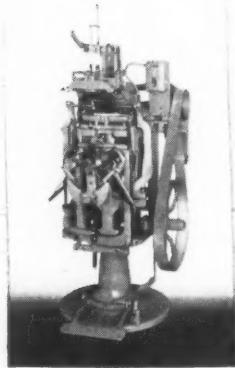
Look the WORLD over...

*And You'll Find the One Best LABELER
For Your Glass Containers*



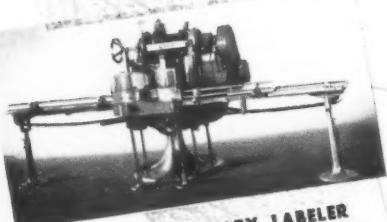
THE WORLD BEE-LINE LABELER

— for high quality, high precision, automatic application of front labels, front and back labels, and neck labels if desired, to round, square, oval, flat or panel glass containers. There is a Model 65 BEE-LINE, a Model 120 BEE LINE with twin labeling stations for high production at the lowest efficient labeling speed and a BEE-LINE for handling gallon and half-gallon jugs and bottles as well as the smaller sizes.



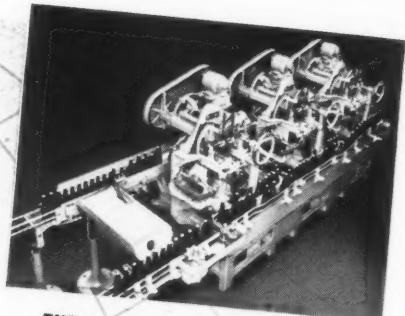
**THE WORLD
MODEL S
SEMI-AUTOMATIC
LABELER**

— for applying body labels, front and back or all around, — body labels, neck labels, and foil in a single operation — to any size container from tiny vials to gallon jugs. Ideal for those with a variety of label or container sizes and shapes. Designed for rapid change-overs and fast operation by unskilled workers.



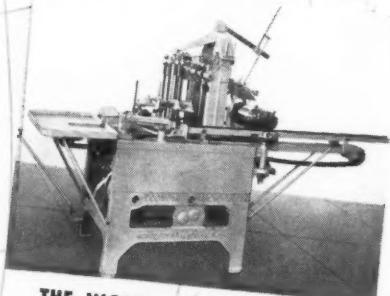
THE WORLD ROTARY LABELER

— for low cost, volume production of smoothly and securely labeled round bottles or jars of a variety of types and sizes from 4 oz. or less to 32 oz. or more. Variable speed control and various sizes and arrangement of multiple units provide capacity to match any requirement. Applies body labels, body and neck labels, or body labels, neck labels and foil in one operation.



THE WORLD TANDEM LABELER

— for super-efficient high production labeling of round glass containers. Applies body labels, body and neck labels, or body labels, neck labels and foil to a wide variety of sizes and shapes. Designed to meet expanding production needs with maximum economy at any desired rate from 75 to 300 bottles per minute.



THE WORLD TURRET LABELER

— for fully automatic, continuous, low cost labeling of a quality that is worthy of the finest products packed in glass. Applies body label, neck label when desired, all-around neck wrap, or foil. Handles round or fluted containers from 2 to 4 ins. dia., 3 to 13 ins. high. Uni-Turret for labeling 60 to 75 containers per minute. Twin-Turret for 120 to 140 per minute.

Bulletins with detailed descriptions of each of these WORLD Labelers are available on request. For recommendations and estimates, send samples of your containers and labels and tell us how many you want to turn out per hour.

ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

WORCESTER, MASSACHUSETTS

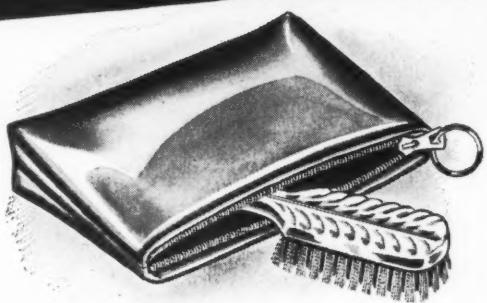
New York Philadelphia Pittsburgh Chicago San Francisco Los Angeles Denver
Louisville Salt Lake City El Paso Seattle Portland Phoenix London Montreal
Toronto Winnipeg Newfoundland Vancouver Mexico City Sydney, Australia
Wellington, N.Z. San Juan, P.R. Ciudad Trujillo, D.R. Honolulu, T.H.

"YOU GET THE
BEST LABELERS
IN THE WORLD"

"RE-USE PACKAGING".....BY SIRIS

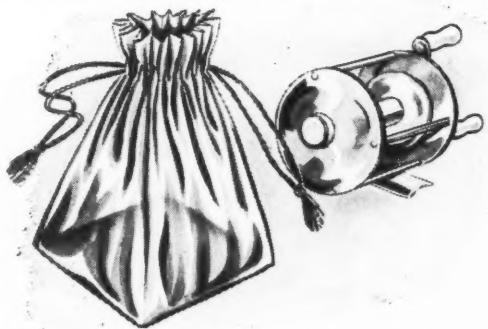
COSTS SO LITTLE

SELLS SO MUCH



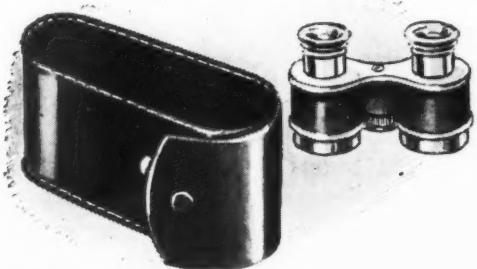
ZIPPER BAGS and pouches in all sizes and materials, lined or unlined. Can have inner pockets. Some water-proofed.

as low as 13¢ each



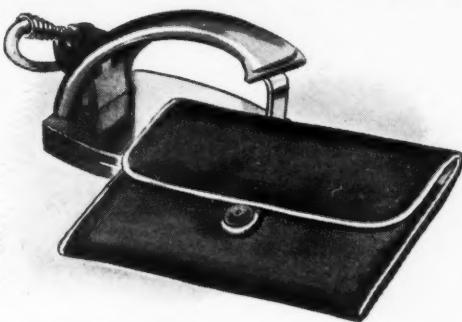
STRING POUCHES in translucent vinyl film and other materials. Some water-proofed. All sizes.

as low as 6¢ each



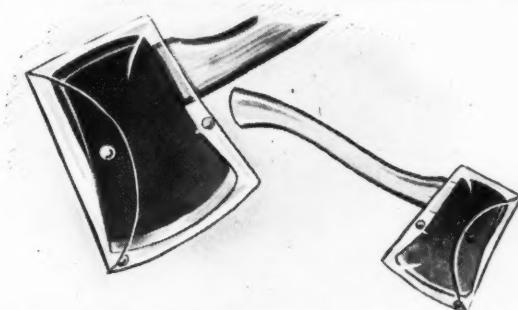
RIGID CONTAINERS with button, clasp or slide closings. All shapes and materials.

as low as 8¢ each



SIMULATED LEATHER and other plasticized materials make luxurious containers for many products.

as low as 14¢ each



TRANSPARENT CASES, heat or electronically sealed, make excellent point-of-sale containers and a really practical carrying case.

as low as 4¢ each

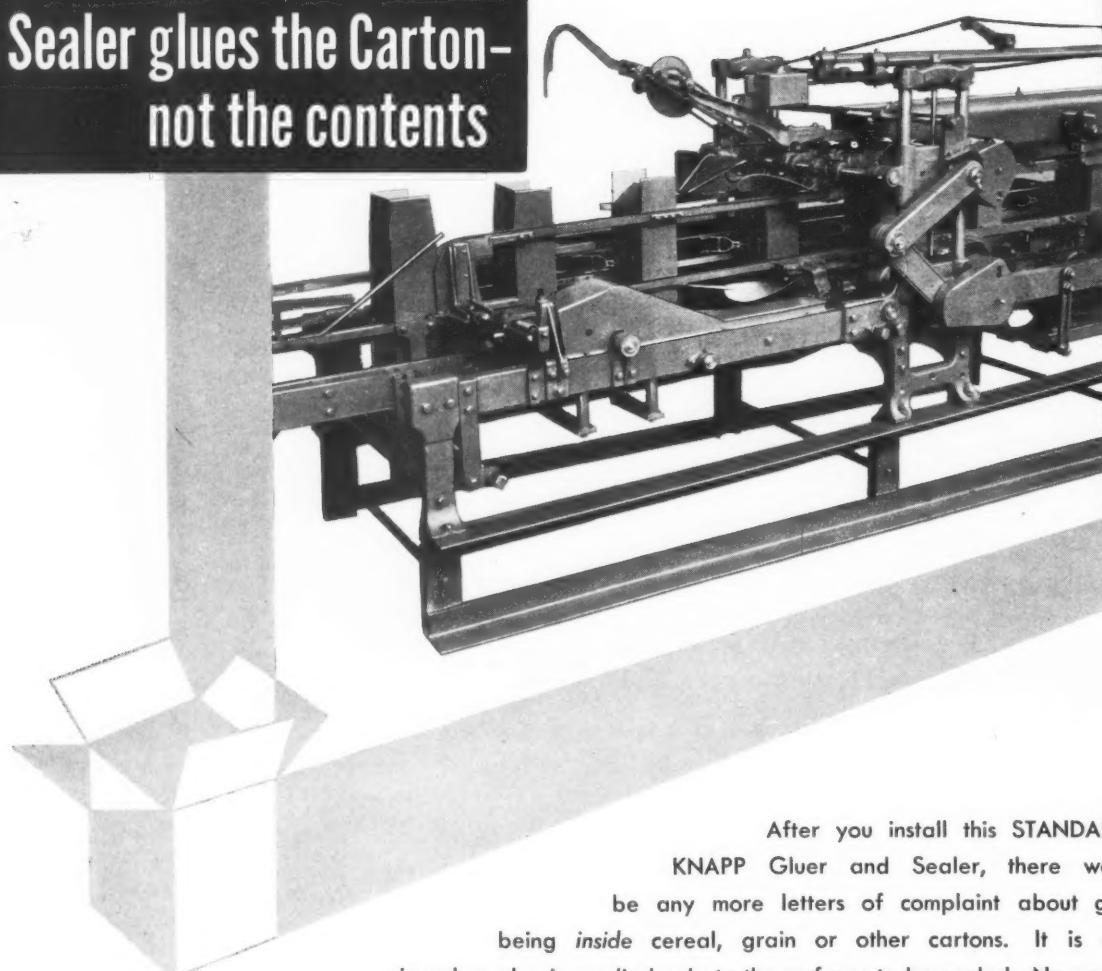
→ SEND US a sample of your product and our design department will create a sales compelling package for you without obligation on your part. ←

A.J.SIRIS
PRODUCTS COMPANY
Packaging Division

130 East 13th Street • New York 3, N. Y.

745 N. Crescent Heights Blvd., Los Angeles 46, Calif.
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Lanchester, Durham, England

This Sealer glues the Carton—not the contents



After you install this STANDARD-KNAPP Gluer and Sealer, there won't be any more letters of complaint about glue being *inside* cereal, grain or other cartons. It is designed so glue is applied only to the surfaces to be sealed. No excess can seep into the package during sealing and contaminate the contents.

Like all other STANDARD-KNAPP equipment—can labelers, bottle packers, case packers—the Standard-Knapp Gluer and Sealer can be easily connected to your present conveyor system. Its heavy-duty construction assures dependable, uninterrupted service with a minimum of maintenance. All parts are accessible for easy cleaning.

Our packaging engineers will be glad to show you how the STANDARD-KNAPP Gluer and Sealer and other STANDARD-KNAPP equipment can add to the economy and efficiency of your plant operation.

Standard-Knapp Corporation

MANUFACTURERS OF CASE SEALING, CASE PACKAGING AND CAN LABELING MACHINES
FACTORY and GENERAL OFFICES—PORTLAND, CONNECTICUT

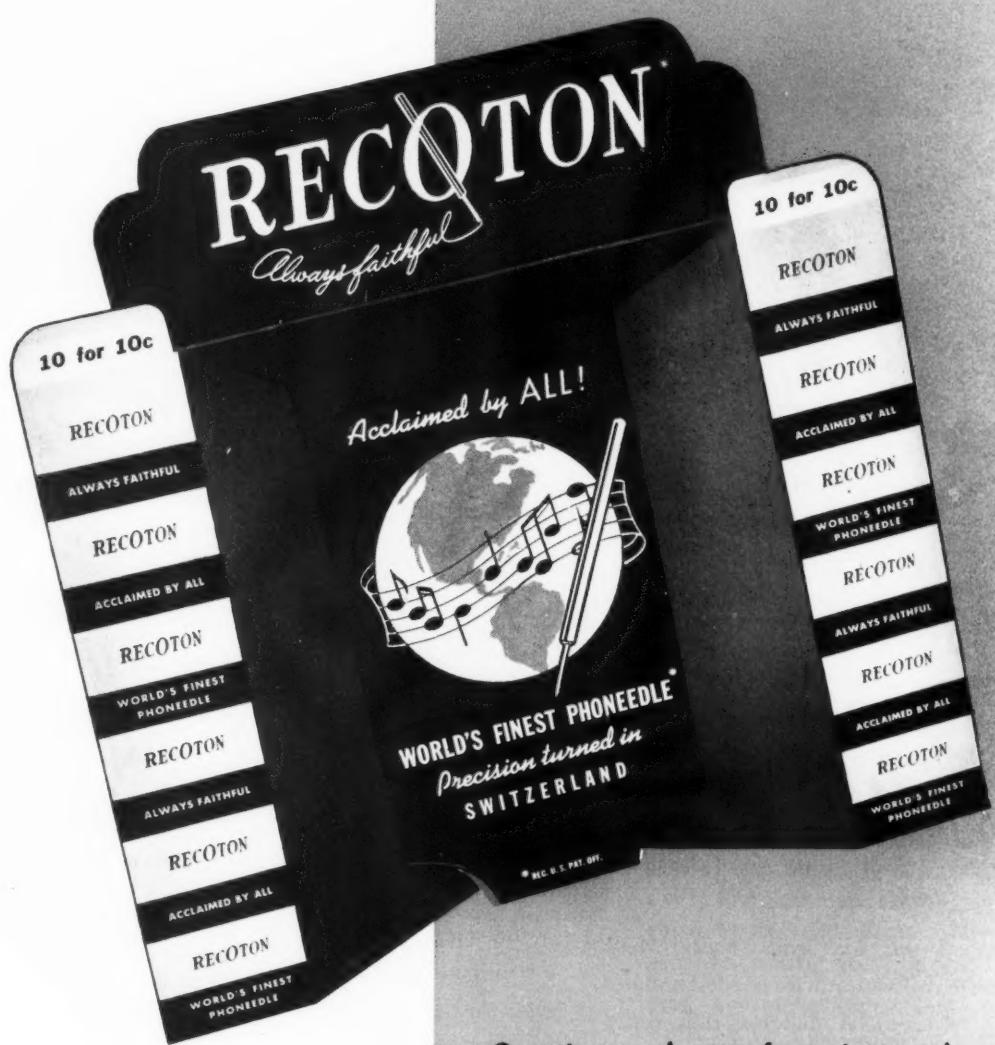
570 Lexington Avenue
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420 S. San Pedro Street
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ALLSTON 34 (Boston), MASS.

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3222 Western Avenue
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Hamilton, ONTARIO, CANADA

145 Public Square
CLEVELAND 14, OHIO
1412 N. W. 14th Avenue
PORTLAND 5, OREGON
Orlando
FLORIDA

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the Finest Displays
of the Finest Merchandise
for the Finest People



Creating and manufacturing real sales builders in all types of "point - of - purchase" material is our business. May we show you how this proven, potent merchandising medium can be successfully utilized for your product.

BROOKS & PORTER, INC.
304 HUDSON STREET, NEW YORK

Packaging and display specialists for half a century



New Navy "Skyhook" balloon made of VISQUEEN film ready for takeoff at Camp Ripley, Minnesota

Navy scientists were curious. They wanted an on-the-spot report about how certain things were — 20 miles high in the sky. Up where it's brutally cold. Up where no human being can live—and the ultra-violet rays of the sun sear mercilessly.

To get those facts, the Navy and General Mills Aeronautical Research Laboratories needed a material for making balloons. A material that could "take it"—carrying 70-lb. loads of delicate instruments high into the stratosphere — and back again. Specifications called for a strong, light, plastic film, held rigidly to a thickness of 1/1000th of an inch. Extremely accurate production control was essential. A variation of as little as 5% in weight would pull the payload down as much as 25%.

The Visking Corporation was equipped to pro-

duce a film that would meet the required specifications. Visqueen film accepted the challenge — and licked it! These properties tell why: Visqueen film stays flexible at temperatures as low as 94 degrees below zero Fahrenheit. It has a very low transmission rate for helium and many other gases. It's strong — non-adhesive. And it's immune to both air and ultra-violet light.

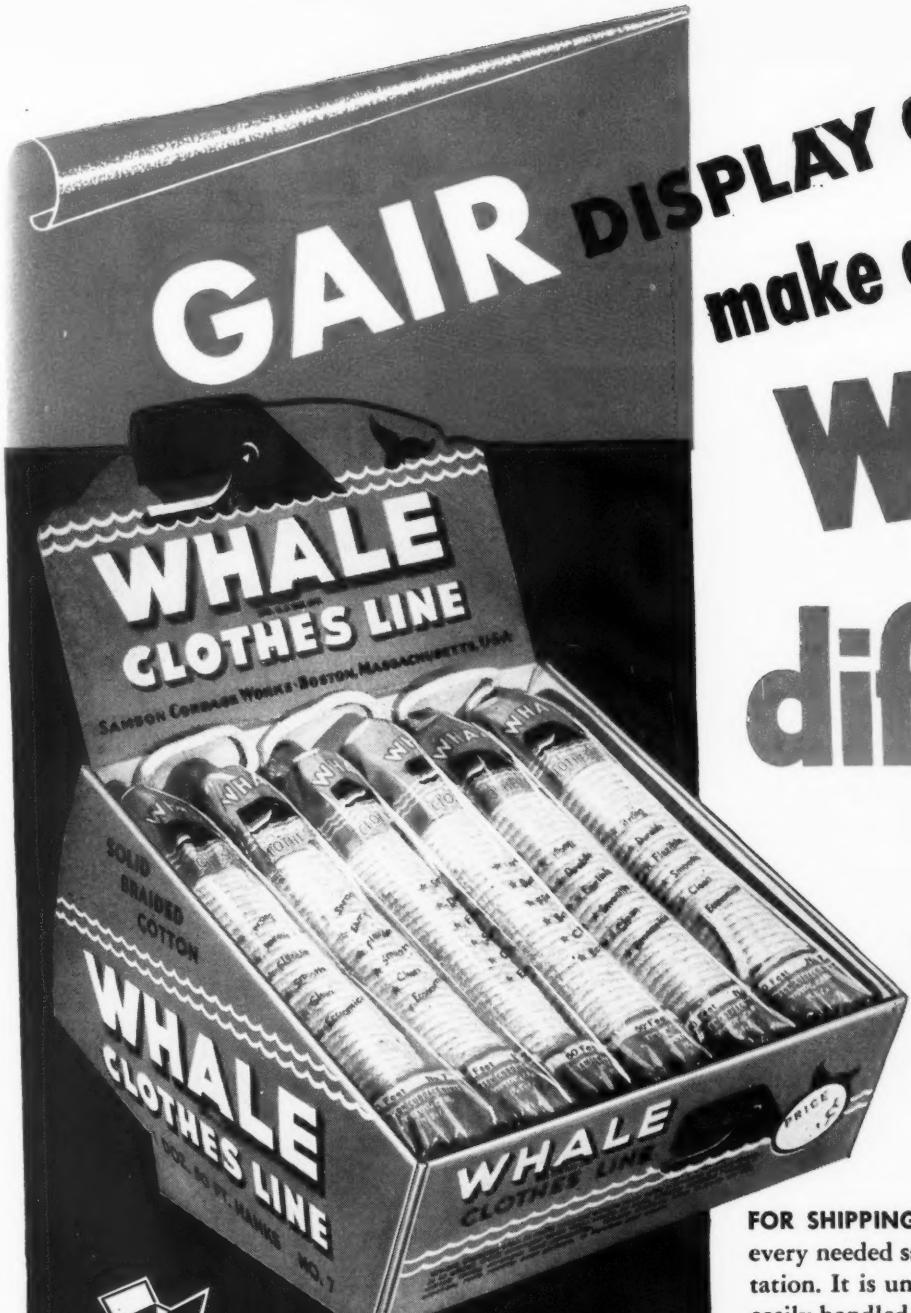
For all the facts on how Visqueen film will lick your packaging problem, too — write today to — The Visking Corporation, P. O. Box 1410 C, Preston Division, Terre Haute, Indiana.



PURE
TASTELESS
ODORLESS

*VisQueen**
FILM

*T. M. The Visking Corporation



GAIRanteed Display Stands are making a WHALE of a DIFFERENCE in sales when prominently displayed in retail stores. Results are amazing! Sales soar UP . . . UP . . . UP . . . and profits with them.

When the GAIR organization designed and produced this combination Shipping Case and Sales-Promotion Display Stand for the Samson Cordage Works of Boston, Mass. to help sales of their Whale (Reg. U. S. Pat. Off.) Clothes Line, it solved a double problem:

GAIR DISPLAY CARTONS
make a
Whale
of a
difference
in
speeding up
retail sales

FOR SHIPPING . . . this GAIR innovation includes every needed safeguard against damage in transportation. It is uniquely designed, quickly packed and easily handled. Soon after arrival at retail stores the shipping case becomes an advertising medium with a record-breaking "sales impact". It's economical, too!

FOR ADVERTISING . . . the advertising message is folded down and protected inside the shipping case. At the point of sale it is quickly opened up, fresh and undamaged. Just three simple steps and it is set-up, ready to become a hard-hitting TILTING DISPLAY.

Yes! A GAIRanteed COMBINATION SHIPPING CASE and DISPLAY STAND will make a WHALE OF A DIFFERENCE in your sales, in retail stores everywhere.

ROBERT GAIR COMPANY, INCORPORATED

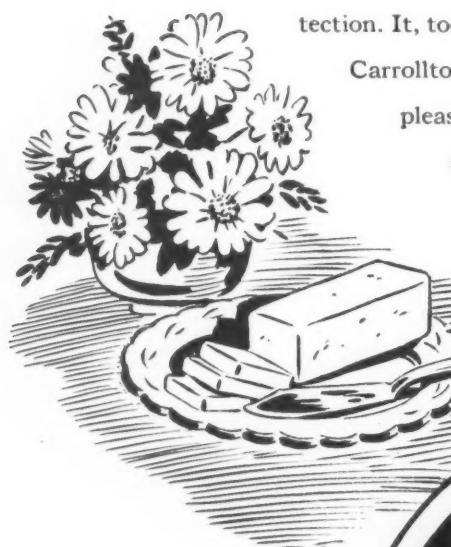
NEW YORK • TORONTO

PAPERBOARD • FOLDING CARTONS • SHIPPING CARTONS



From Dairy to Dinner—

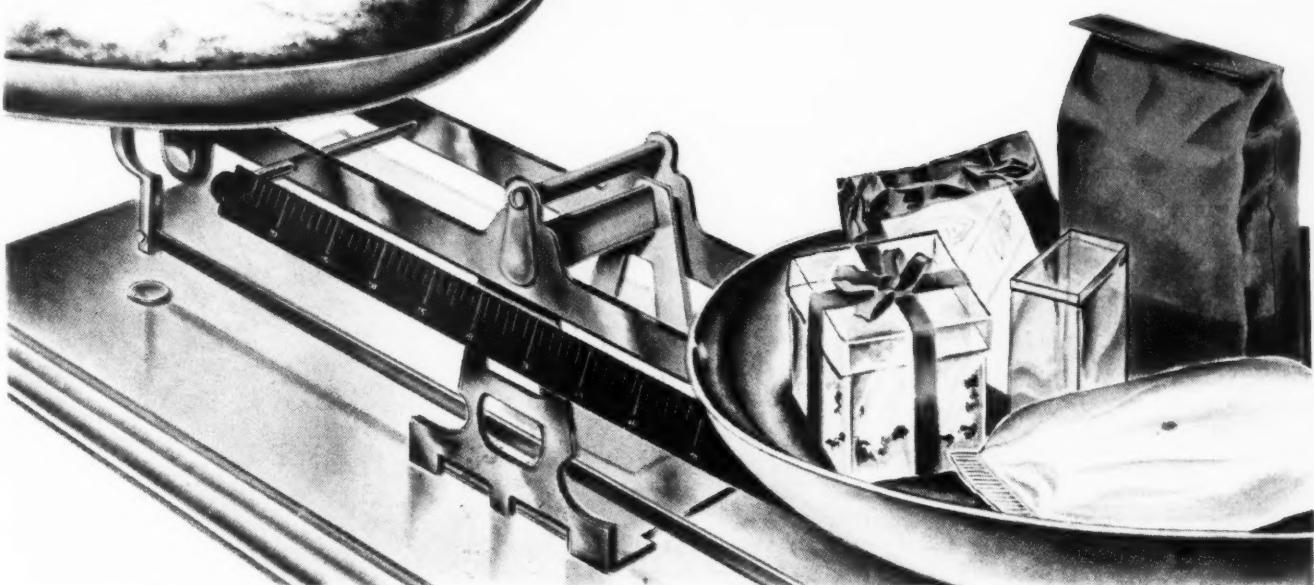
Consumers demand that the savor of moist foods—butter, shortening, ice cream, cheese, poultry, meat and vegetables—be preserved in all its original freshness. Packers find this obligation most capably fulfilled by West Carrollton Genuine Vegetable Parchment. The natural flavor and consequent salability of *your* product will benefit by safe, pure, odorless protection. It, too, deserves the advantage of being wrapped in West Carrollton Genuine Vegetable Parchment. Attractive, smooth, pleasant to touch, its unusual strength is in no way hampered by steam, water, grease or frost. Ask for West Carrollton Genuine Vegetable Parchment. We have complete facilities in our own plant for printing in one or more attractive colors, using special inks.



West Carrollton
GENUINE VEGETABLE
Parchment

WEST CARROLLTON PARCHMENT Co.
WEST CARROLLTON, OHIO

Can this new Vinyl Resin solve YOUR packaging problems?



There's a world of profit possibilities in plastic packaging . . . whether film, coated paper or foil . . . made from Marvinol® resins by calendering or spread-coating. Consider these facts:

Versatility!

Packages made from this low-priced raw material can be crystal clear, brilliantly or delicately colored . . . are non-inflammable, may be heat-sealed. Marvinol formulations are light in weight, smoother to the touch, have high molecular weight yet are easy to process or work.

Saleability!

Marvinol-based plastics are tougher, more flexible, have better resistance to tear, wear, heat, cold, sunlight, oils, acids. They're waterproof, unaffected by mold, may be tasteless and odorless, have great dimensional stability.

Uniformity!

These superior Marvinol resins are a development of Martin research and Martin's quarter-century of plastics experience. They're being produced in the world's most modern chemical plant to assure you of unexcelled uniformity and quality. The Glenn L. Martin Company does not compound or fabricate in the plastics field; but we will be glad to supply you with a list of the companies which are now processing Marvinol resins. For further information write on your company letterhead to: Chemicals Division, The Glenn L. Martin Company, Baltimore 3, Maryland.

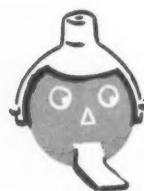
Martin® Marvinol

RESINS, PLASTICIZERS AND STABILIZERS, PRODUCED BY THE CHEMICALS DIVISION OF
THE GLENN L. MARTIN COMPANY • AN INTERNATIONAL INSTITUTION

"BETTER PRODUCTS, GREATER PROGRESS, ARE MADE BY MARTIN"



"Scotch" Tape helps make **JOLLY KAP "tops"** in his field



He's quite a lad, this Kolynos Jolly Kap. Put him on a tube of Kolynos and he'll keep the tube capped for you with never any hide-and-seek on your part. Introduced to the public in a combination deal, he's giving Kolynos a whale of sales boost.

How to pair Jolly Kaps with regular Kolynos packages was a stopper until "SCOTCH" Tape came up with the answer. A snip of transparent "SCOTCH" Tape holds old Jolly Kap on tight and keeps him right up there where the customers can get a good look at him.

What's your packaging problem? Any kind of premium or combination deal looks better, holds better and sells better when "SCOTCH" Tape is on the job. Send your packaging headache to us. We'll turn our experts loose on it, and the odds are they'll have the solution in no time.

REG. U.S. PAT. OFF.
SCOTCH *Cellulose* **TAPE**
BRAND

TRANSPARENT AS GLASS—SEALS WITHOUT MOISTENING

ANOTHER  PRODUCT

Made in U.S.A. by **MINNESOTA MINING & MFG. CO.** St. Paul 6, Minn.



TUFFLEX

gives you ALL these packaging features

● Yes, Tufflex combines so many advantages that it stands unique as protective padding for safer shipping of all types of fragile and perishable merchandise. No wonder this felted wood fiber blanket is so rapidly gaining in popularity! Check these reasons why Tufflex gives better protection—then mail the coupon for full information.

RESILIENT

The felted wood fiber mat of Tufflex has remarkable resilience or "spring-back" characteristics.

**RESISTS
IMPACT**

With its unusual compressive resistance, Tufflex protects against heavy impact blows.

**NON-
ABRASIVE**

Tufflex is soft as lamb's wool—can't mar or scratch finest surfaces.

**DURABLE
FELTED FIBERS**

Tufflex is composed of interlaced wood fibers, felted together to provide a durable homogeneous mat, resistant to shredding, tearing or delamination.

CLEAN

Made of new wood fibers, Tufflex is clean, non-irritating and pleasant to handle.

VERSATILE

Available in a wide variety of types, thicknesses, densities and surface treatments (liners), Tufflex is mold-proofed and obtainable in flame-retardant and moisture-resistant forms.

**EASY
TO FABRICATE**

Available in rolls or sheets, Tufflex cuts easily, with sharp edges, to any size or shape.

INSULATES

Tufflex has a low thermal conductivity and is ideal for protection of products against heat and cold.

ECONOMICAL

Low in initial cost, Tufflex pays for itself with labor-saving, ease of application and reduction of damage losses.

**FULLY
APPROVED**

Tufflex is approved for furniture packing under description "Wood Fiber Felt Blankets" in the Railroad's Consolidated Freight Classification No. 17 (Supplement 45).



WOOD CONVERSION COMPANY
Dept. 208-58 First National Bank Building
St. Paul 1, Minnesota

Gentlemen: I want to know more about Tufflex. Please send me complete information.

Name.....

Address.....

City..... State.....

QUIZ FOR CANNERS

— baby foods —

1. What's the silliest superstition about baby food?



2. HOW MANY OF THESE BABY FOODS ARE NOW PACKED IN CANS?

- (a) Vegetable Soup?
- (b) Liver Soup?
- (c) Mixed Vegetables?
- (d) Carrots?
- (e) Peaches?
- (f) Pears & Pineapple?
- (g) Beef, Veal & Lamb?
- (h) Vanilla Custard?

3. HOW DID AN OCEAN VOYAGE LEAD TO THE CANNING OF MILK?



4. WHAT'S THE AVERAGE NUMBER OF POUNDS OF BABY FOOD THAT EACH INFANT IN THE U.S. EATS PER YEAR?

- (a) 12 pounds?
- (b) 22 pounds?
- (c) 42 pounds?



WHEN WAS THE FIRST MOTHER'S DAY? By the Book of Firsts it was in 1908—but we'd say the first real mother's day was the day that baby food was first packed in cans. Canners have done a whale of a job in helping mothers "bring up juniors" . . . and Continental is proud of its role in helping them deliver their delicious, nutritious foods to the home.

• • • ANSWERS • • •

1. The silliest superstition about baby food is the now outmoded idea that this food shouldn't be left in the opened can. According to the Department of Agriculture, "It is just as safe to keep canned food in the can it comes in—if the can is cool and covered—as it is to empty the food into another container..."
2. All of these baby foods are now packed in cans—

and they're only part of the complete list.

3. Gail Borden saw babies suffer and die aboard a sailing ship due to a lack of healthful milk. This sad experience started him on his successful search for a way to preserve milk.

4. The Department of Agriculture estimates that each child of three or younger consumes 42.1 pounds of baby food a year.

CONTINENTAL

100 East 42nd Street

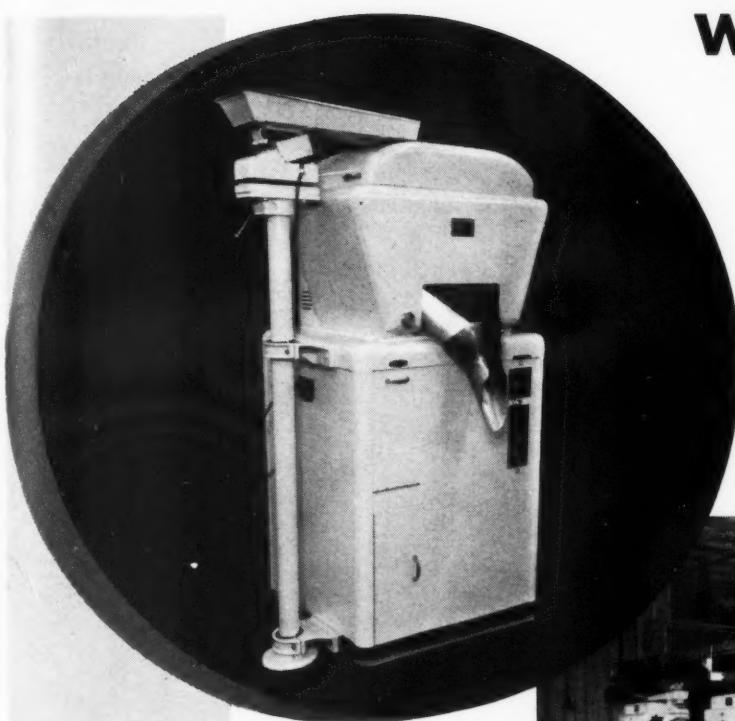


CAN COMPANY

New York 17, N. Y.

WRIGHT'S Hy-Tra-Lec

**Weighs and Fills
Dry Products
At High Speed
With ACCURACY!**



A superior method is now available for weighing and filling free-flowing and semi free-flowing dry products. This new method is based on the principles of "positive displacement". It's exclusive with Wright's Hy-Tra-Lec automatic net weighers. Range: one half ounce to 16 ounces.

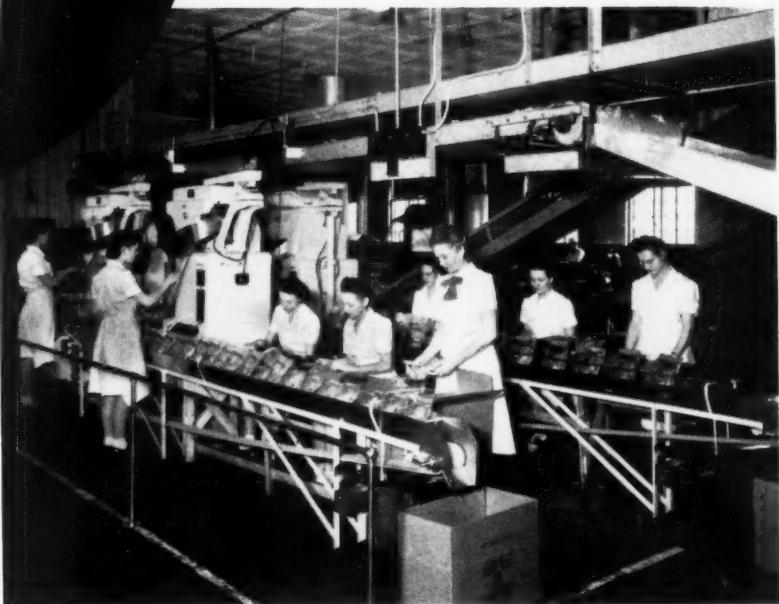


Photo: Kitty Clover, Inc., Omaha, Nebraska

Users at present include approximately 100 food plants. They report Hy-Tra-Lec permits high speed weighing with accuracy previously unattainable...and at a savings in their weighing-packaging operation of from 18 to 51 percent.

Literature and details gladly supplied. Get the Wright story today.

**WRIGHT'S Automatic
Machinery Company**

AFFILIATED WITH THE SPERRY CORPORATION

"Pioneers Since 1893 In Automatic Packaging Machinery"
OFFICES IN NEW YORK, CHICAGO, DURHAM, AND SAN FRANCISCO

WRIGHT'S AUTOMATIC MACHINERY COMPANY

Durham, North Carolina

Please send me information on your Hy-Tra-Lec automatic weighers.

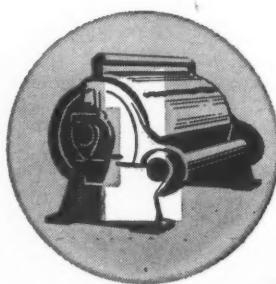
Name _____ Title _____

Firm _____

Address _____

City _____

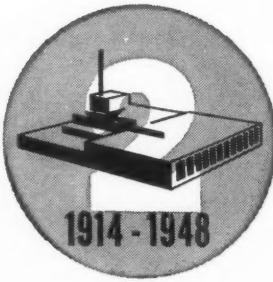
Three High Quality Standards guarantee Trojan Custom LAMINATED and COATED Papers



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YEARS OF SPECIALIZED
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1914 - 1948

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Foil laminations to paper, board and cloth.

Pliofilm, cellophane and other protective laminations.

Special heat seal, greaseproof, protective coatings.

Looking for quality? . . . Your search is ended! Trojan laminated and coated papers will meet your most rigid standards. And check this: the Laminating and Coating Division of The Gummed Products Company offers a reliable



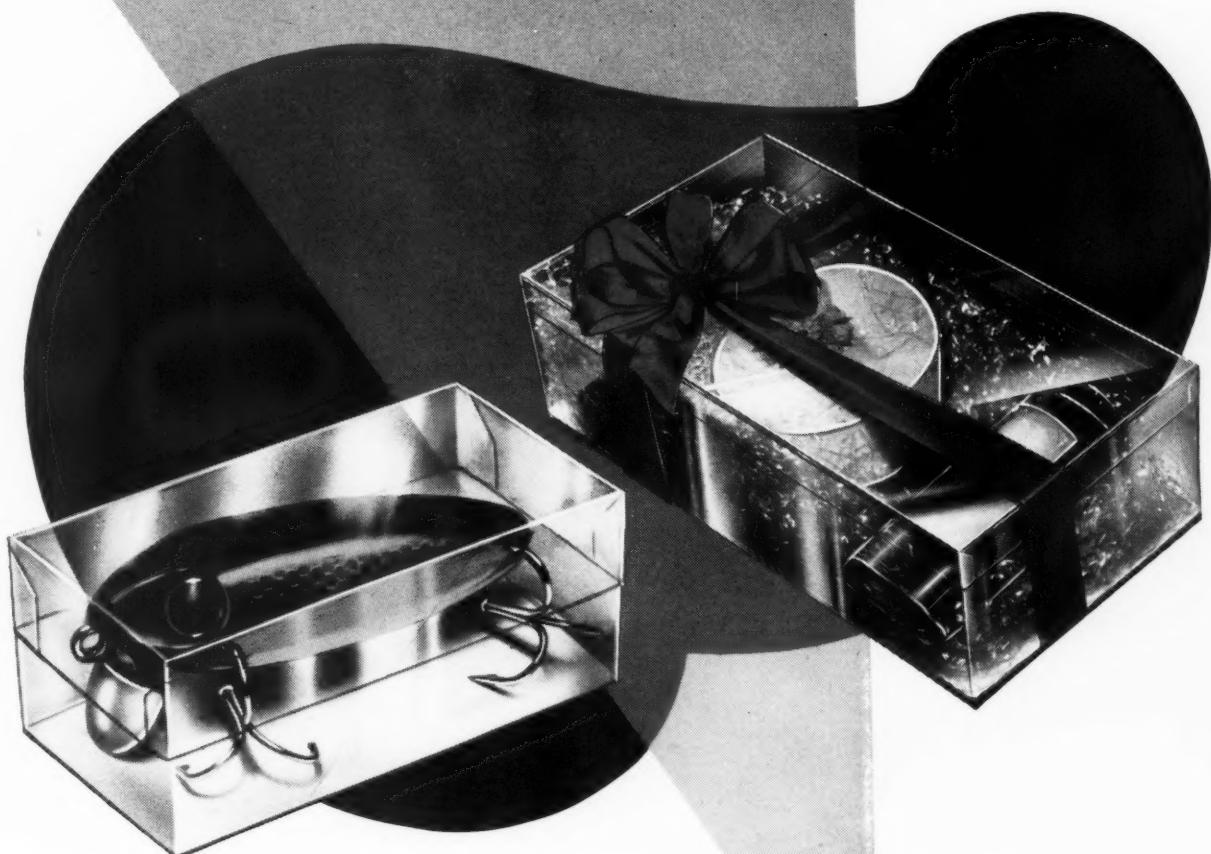
FOR COMPLETE FACTS ON THIS NEW CUSTOM SERVICE AND FREE SAMPLES
OF TROJAN LAMINATED AND COATED PRODUCTS, WRITE DEPT. 295 TODAY

two-way service. Send your foil, paper or protective materials for fast, efficient custom laminating or coating. Or order Trojan products made exclusively for the decorative, protective and graphic arts fields. You get best results, either way.

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OFFICES • TROY, OHIO • MILLS

Chicago • Cincinnati • Cleveland • Los Angeles • New York • Philadelphia • St. Louis

LURE and ALLURE



**They're both yours
in a
SHOWBOX**

Luring customers is easier
when your packaging has allure.

Showboxes are dramatic
packaging, making just about any product look *better*. They demand
attention and boost impulse sales. The brilliant, transparent
plastic combines protection, visibility and maximum eye-appeal. Let
us make a sample Showbox for *your* product to show you.

SHOWBOX

Division of
CENTRAL STATES PAPER & BAG CO.
5221 NATURAL BRIDGE • ST. LOUIS 15, MO.

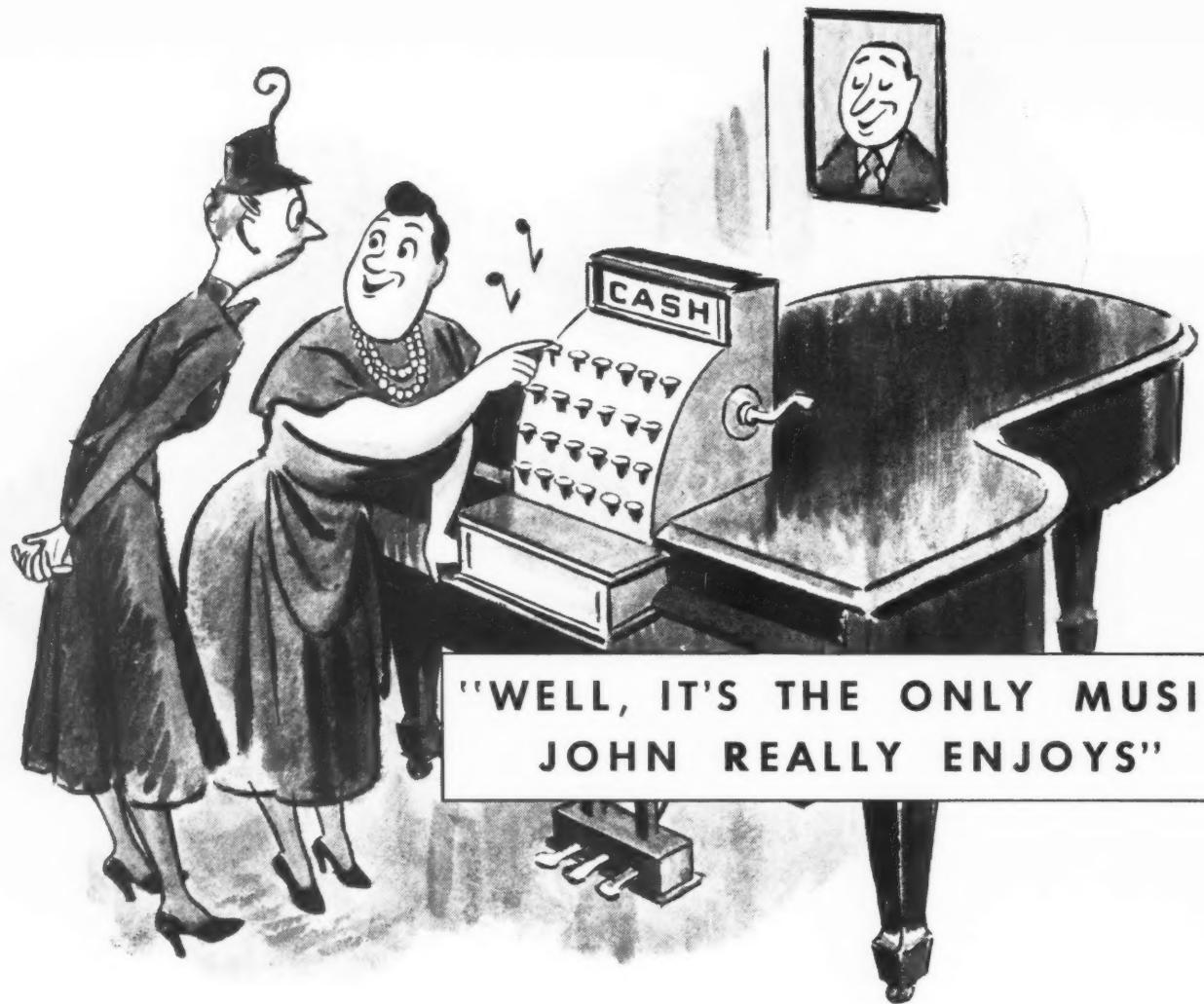
DETROIT
4461 W. Jefferson Ave.

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3723 Wilshire Blvd.

NEW YORK
392 Madison Ave.

PHILADELPHIA
Land Title Bldg.

CHICAGO
520 N. Michigan Ave.



"WELL, IT'S THE ONLY MUSIC
JOHN REALLY ENJOYS"

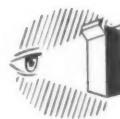
Marvelous uniformity is a Ridgelo characteristic that is especially advantageous in high speed machine-type filling operations.



Product protection and unblemished eye appeal place a premium on Ridgelo's strength to withstand stacking and shipping.



Eye appeal is synonymous with buy appeal, and the perfection with which Ridgelo takes printing is a tribute to its quality.



The dazzling brightness of Ridgelo box board assures color contrasts that make the most of smart designs and even muted colors.



Ridgelo
CLAY COATED
BOXBOARDS

MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY

Representatives:

H. B. Royce, Detroit
Norman A. Buist, Los Angeles
A. E. Kellogg, St. Louis
Philip Rudolph & Sons, Inc., Philadelphia



**THE BEST DRESS
IS NONE TOO GOOD!**

IN THESE days of growing competition, the dress of your product cannot be too good. It must get attention, create desire, and sell as never before.

A. C. M. Clay Coated Cartons stand out in the stiffest competition.

Pure white, velvet smooth surfaces print better, have greater luster, more eye-appeal. Perfect color reproduction sells the shopper that contents are fresh, clean, desirable.

Investigate our complete packaging service for advantages of a new, better, more buy-compelling carton for your product. No obligation! Write, wire or phone the sales office nearest you.

● AMERICAN COATING MILLS

Division of Owens-Illinois Glass Company
PLANTS: Elkhart, Ind. • Chicago • Memphis • Grand Rapids

America's Largest Producers of Clay Coated Folding Boxboard and High Quality Printed Cartons



The Secret is in the SURFACE!

A.C.M. Clay Coated Cartons

and carton board

SALES OFFICES: Elkhart, Indiana • Chicago • New York • St. Paul • Memphis • Grand Rapids • Evansville • Detroit • Indianapolis • Cleveland

THE ROTO BAG MACHINE

...double seals every bag seam with heat and glue

The ROTO BAG MACHINE is designed to produce bags of heat-seal coated materials and to perform this function in a simple and economical manner. The value of the heat-sealing method in moisture proof bag making has long been recognized, but heretofore the methods of its application have lacked dependability and/or satisfactory speeds of production.

The unusual features of the ROTO BAG MACHINE make possible the full use of high speed rotary action to fabricate bags of maximum strength and moisture-proofness. Though basically heat-sealing the ROTO also utilizes an adhesive, both as an integral part of bag construction and to overcome any weakness in sealing due to possible inconsistencies in the film used.

Normal circumstances will permit a top speed production of 7200 bags per hour and the average hourly output is approximated at 6000. The rate is contingent on the type and weight of the material used as well as bag dimensions; it can be altered as necessary through the use of a conveniently located variable speed adjuster. The machine requires only one operator.

The ROTO produces both flat and gusset style bags in either single wall or duplex form. Heat seal coated materials such as cellophane, diafane, aluminum foil and other laminated stocks can be used.

Size ranges are from 2 to 9½ inches wide and 3 to 16 inches long. A separate former and cut-off gear is required for each variation

in width and length respectively; changes in bag sizes are simply and speedily effected because of the accessibility of these parts.

When it is contemplated that pre-printed materials will be used, the machine is equipped with a photo-electric eye device. This electric eye is a complete unit operating from a separate electric motor through an independent transmission. It performs with equal efficiency on either transparent or opaque material with two-way compensation.

A mechanical counter is provided from which production figures may be taken and an additional device is included for the separation of bags at intervals of 25 to facilitate handling and packing.

Electrical Specifications: 115 volts A.C.—single phase—60 cycle $\frac{1}{3}$ H.P. motor. (Variations may be had—estimates submitted.)

Shipping Information: Net weight—1150 lbs.; Export gross—2000 lbs. (approx.) Export crated—100 cubic feet. Domestic gross—1600 lbs. (approx.) Floor space—3 by 7 feet.

The finest materials are used in the ROTO's construction to insure long life and dependable performance. Consequently the ROTO is unconditionally guaranteed to operate as specified, and further, each part is warranted against defect for a period of 6 months.

Quotations on price and delivery will be rendered on request. Demonstrations may be arranged at your convenience.

ROTO BAG MACHINE CORP.

310 EAST 22nd STREET

NEW YORK 10, N. Y.



Papers of the season.

LOUIS DEJONGE & CO.

345 Broadway — New York City

BRANCH OFFICES: BOSTON • CHICAGO • PHILADELPHIA • TORONTO







*for that
appointment in December ..*

...MEET CHRISTMAS WITH ASSURANCE AT DEJONGE

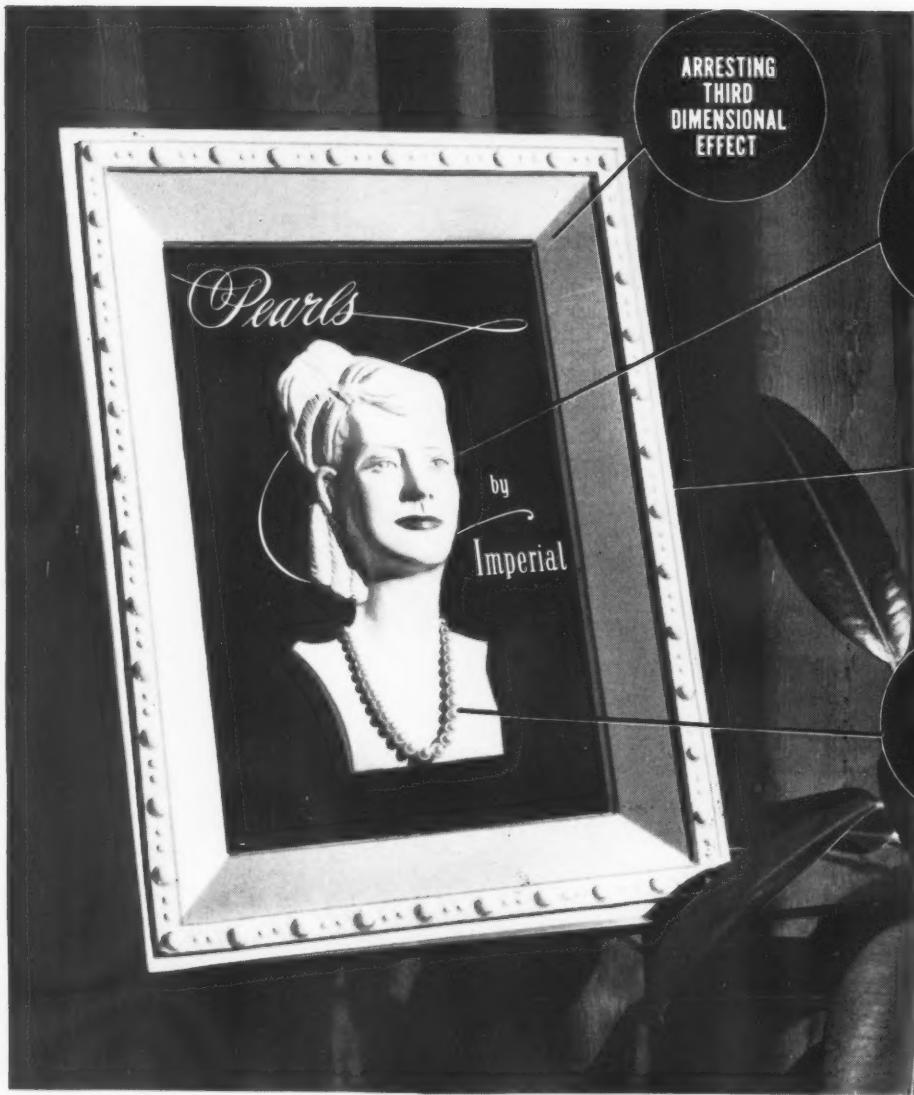
Chosen for over a Century as the finest
Christmas Packaging and Trademark
Papers of the season.

LOUIS DEJONGE & CO.

345 Broadway — New York City

BRANCH OFFICES: BOSTON • CHICAGO • PHILADELPHIA • TORONTO





a revolutionary new idea in
COUNTER DISPLAYS

TRANSPARENT PACKAGING
 INTRIGUING SET-UP BOXES
 SPECIALIZED PACKAGING
 CREATIVE FOLDING CARTONS
 UNUSUAL MERCHANDISE COUNTER DISPLAYS

Never before has it been possible to make this type of display piece at a cost that would permit general distribution among dealers. Drawn in one piece, from acetate sheet material. Lends itself to a variety of uses for counter and store display. Beautiful . . . crowd-arresting . . . sales-producing.

ACME
Trans-Pak Company
 STATE AT SIXTIETH ST., CHICAGO 21, ILL.

DIVISION OF **ACME PAPER BOX CO.**
Creators • Designers • Manufacturers

STAR BRAND ADHESIVES..



ONE TRIAL IS WORTH A THOUSAND WORDS!

For your labeling operation, the *one* important characteristic your adhesive must possess is to give *absolutely dependable results* . . . the kind that lets you sit back with the comfortable assurance that comes with *knowing* your label on retail shelves still sparkles with factory-fresh smoothness.

With Star Brand Labeling Glues in your plant, it becomes unnecessary for you to keep records of adhesive used, conditions prevalent and other time-consuming entries. You no longer need wade through complicated data, specifications and formulae.

Why? Because right now there's a Star Brand Adhesive to meet every single labeling requirement and other routine adhesive needs, formulated to produce exactly the results you're looking for. . . . And for exceptional conditions requiring a *special* adhesive, we're prepared to formulate a *new* Star Brand Adhesive capable of doing your job right. *Send for samples . . . there's no obligation.*

- STAR Case Sealing Glue
- STAR Folding Box Glue
- STAR Hot & Cold Pick-Up Gums
- STAR Tin Paste
- STAR Brightwood Gum
- STAR Carton Sealing Glue
- STAR Bench Paste
- STAR Tube Glue
- STAR Lap End Paste
- STAR Tightwrap Glue



"MAKE YOUR IDENTITY STICK"

BROTHERS COMPANY

S I N C E 1 8 2 6

NEW YORK
406 Pearl St.

BALTIMORE
131 Colvin St.

PHILADELPHIA
1315 Race St.

ROCHESTER
980 Hudson Ave.

NEWARK
Lester Ave.



MORE MULTIWALLS

New Kraft Center at Pensacola BUILT FOR YOUR NEEDS

It's working for you *now*—the largest integrated operation of its kind! Pensacola's new Kraft Center combines the output of two kraft mills—Florida Pulp and Paper Company and Alabama Pulp and Paper Company (both wholly owned St. Regis subsidiaries) with the output of the new St. Regis multiwall bag plant.

This is further evidence of our earnest wish to serve the demands of the many basic industries which have adopted St. Regis multiwall paper bags. We cannot yet promise you all the bags you want, exactly when you want them. But we are steadily moving toward that goal.

Pensacola's new Kraft Center is a big step forward. From trees to pulp . . . to kraft paper . . . to multiwall bags . . . in one contin-



ST. REGIS

FOR INDUSTRY!

uous flow! And because fast growing Southern pine is a *crop*—there is no danger of shortage.

The Pensacola development was built for *you*! Day in, day out, it is working to supply you with the multiwalls you need for modern, efficient packaging.

There is a St. Regis sales office near you. Consult them about bag deliveries and for recommendations as to St. Regis packers.

SALES SUBSIDIARY OF  ST. REGIS PAPER COMPANY

ST. REGIS SALES CORPORATION
230 PARK AVENUE • NEW YORK 17, N.Y.

NEW YORK 17: 230 Park Ave. • CHICAGO 1: 230 No. Michigan Ave. • BALTIMORE 2: 1925 O'Sullivan Bldg.
SAN FRANCISCO 4: 1 Montgomery St. • ALLENTOWN, PA.: 842 Hamilton St. • OFFICES IN OTHER PRINCIPAL
CITIES—IN CANADA: ST. REGIS PAPER CO. (CAN.) LTD., MONTREAL • HAMILTON • VANCOUVER

BETTER
PACKAGING
at Lower Cost

Packaging Systems

Paper That Gets Around



Remember When Popcorn was a small time novelty of the corner wagon and the movie lobby? Today it is a huge tonnage food product sold everywhere—fresh, crisp and good. Rhinelander moisture protection pioneered this evolution.



Gelatin Desserts—favorite of millions . . . have been scarce of late. But they are coming back and with Rhinelander G & G Task Papers* very much in evidence . . . giving perfect protection . . . keeping harmful moisture out and tasty flavor in.



Oil Control!—and you are reminded when to change again by a clever little tab on your door jamb (just press and it sticks). Special Rhinelander papers do a fine job protecting tacky pressure-sensitive coatings until they are put to use.



Tens of Millions of us Americans like gum. We like it fresh too . . . not dried out and brittle. Rhinelander G & G Task Papers* provide the moisture control gum needs . . . also retain the flavor that makes it taste so good.



Chances Are You Enjoyed your breakfast bacon more this morning because of proper packaging in Rhinelander Bacon Wrap. Chances are also that the clean, crisp good looks of this excellent wrap influenced your purchase at the point of sale.



Chocolate—exotic, rich and savory! This delicious product upon which several great food industries rely heavily, needs to be packaged in material of high density to retain its delicate and volatile flavor components. High density is an extraordinary feature of G & G Task Papers.*

*Glassine and Greaseproof—the functional papers that do so many tough jobs well



Rhinelanders
PAPER COMPANY

TOP-SEALING YOUR CONTAINERS

so your profits can't leak out!

HOW BOSTITCH AUTOCLENCH STOPS TWO COSTLY LEAKS:

1. LOWERS SEALING COSTS

On many products shipped in corrugated containers, you can beat other top-sealing methods by giving them the Bostitch Autoclench touch. Yes! Just touch the container on the outside and the staple is clinched on the inside. As fast and easy as that! No need to insert a sealing blade; the staple closes itself.

Containers may be dusty or clean, hot or cold, damp or dry. The sealing is instant; no drying time. It's sure; no failures. It's neat; no staining nor covering up the printing. All these benefits are yours when Bostitch Autoclench does your top-sealing.

2. PREVENTS SHIPPING LOSSES

On containers suited to this method, you can't beat Bostitch Autoclench for secure fastening. Drum and drop tests have proved that. Dampness can't loosen the seal and let the contents spill out. Pilfering is discouraged—the staples can't be taken out and put back by hand without detection. But, you and your customers can take the staples out *without damaging the container . . . a re-use plus* that's worth big money.

A DEMONSTRATION WILL CONVINCE YOU THAT BOSTITCH AUTOCLENCH FASTENS IT BETTER AND FASTER

See how the amazing Autoclench staple closes itself. Look up your nearest Bostitch distributor in your phone book, or write BOSTITCH.

If your problem is different, ask about the complete Bostitch line of top stitchers, bottom stitchers, self-feeding hammers and tackers, and other stapling and wire stitching equipment.



Machine weighs only three pounds.
A girl can handle it with ease.



At packing bench or in shipping room,
Bostitch Autoclench "seals them where they are."



So quick and so portable—
it can seal them as they pass by.



BOSTITCH
514 Mechanic Street, Westerly, R. I.

Please send literature checked: #175 Bag Sealing #157 Carding
 #132 Shipping

Name.....

Company.....

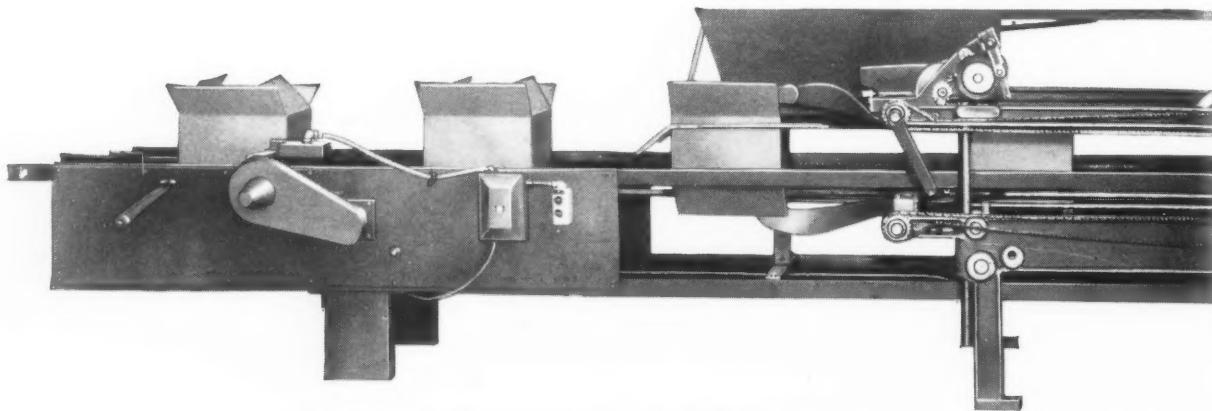
Address.....

City..... Zone..... State.....

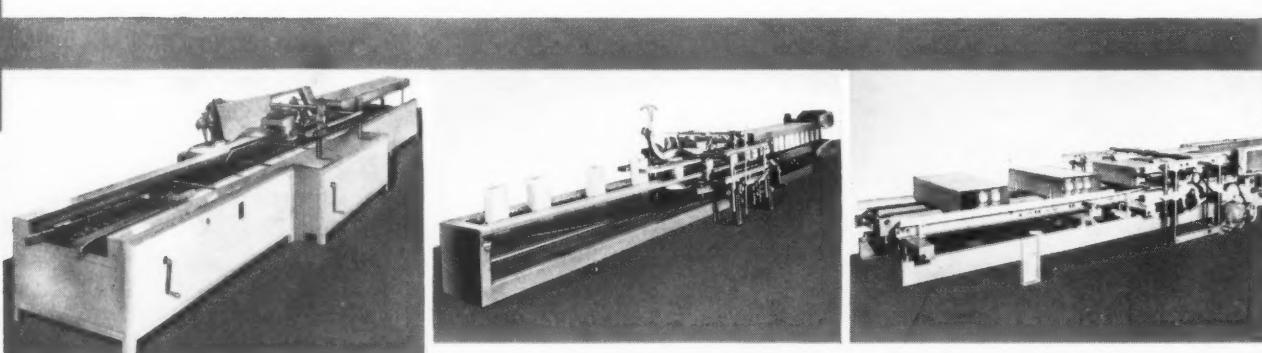
GLUE AND SEAL UP TO 3000 PAPER

WITH

PACKOMATIC.



1 **PACKOMATIC** Automatic Model D Shipping Case Gluer-Sealer for Paper Shipping Containers
Designed for use on high speed production lines, **PACKOMATIC** Model D paper shipping case gluer and sealer is also satisfactory for moderate to slow production lines. Unit automatically applies a wide variety of glue spreads . . . is capable of handling both light and heavy corrugated



2 **PACKOMATIC'S "Streamliner"** Model D case gluer and sealer is a showroom unit, ideal for food and dairy product manufacturers and beverage firms. Typical users are *Hiram Walker, Joseph E. Seagram & Sons*.

3 EXTENDED INLET CONVEYOR attached to Model D for handling cases packed directly on feed-in plate—or elsewhere and placed on feed-in plate. Users include *West Bend Aluminum, Buckeye Aluminum*.

4 SIDE GLUER, SEALER automatically glues and seals both ends of cases going through in horizontal position. For handling end-open type, tall, narrow cases with overlap as well as regular butt flaps. Typical users: *Borden, Quaker Oats, National Oats, Armour*.

If you use paper shipping cases to get your product to market, you need MODERN gluing and sealing equipment to help get it there in good condition. To do this job best, fastest and most economically, call on **PACKOMATIC** to tell you which of its many shipping case gluing and sealing units is best adapted to your particular need.

From **PACKOMATIC** today, you can count on speedy delivery of any one of seven standard shipping case gluing and sealing combinations. Also special applications of any of these seven long-tried and widely used standard units.

From **PACKOMATIC** you draw on more than a quarter of a century's proven experience in designing and building equipment for the world's most foremost manufacturers of packaged products.

Whether you are modernizing present packaging equipment—from container forming and filling to shipping case gluing and sealing—or equipping a new plant, check Metropolitan Classified Directory for the **PACKOMATIC** office nearest you, or contact Joliet. J. L. Ferguson Company, Route 52 at Republic Ave., Joliet, Illinois. Phone Joliet 6275 for all departments.

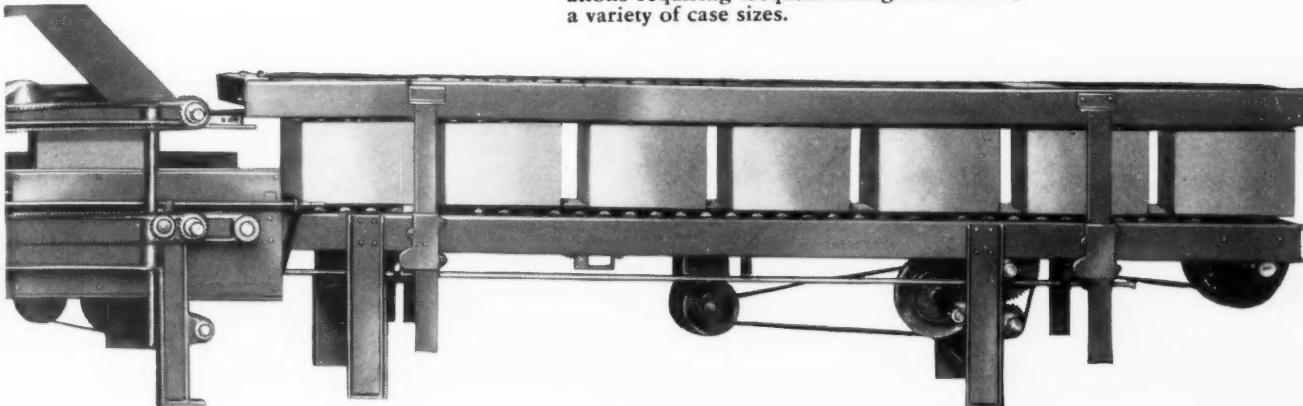
PACKOMATIC
PACKAGING MACHINERY
T. M. REG. U. S. PAT. OFF.
J. L. FERGUSON CO. JOLIET, ILL.

Chicago	•	New York	•	Boston	•	Philadelphia
Baltimore	•	Cleveland	•	Denver	•	New Orleans
San Francisco	•	Los Angeles	•	Seattle	•	Portland
Tampa	•	Dallas				

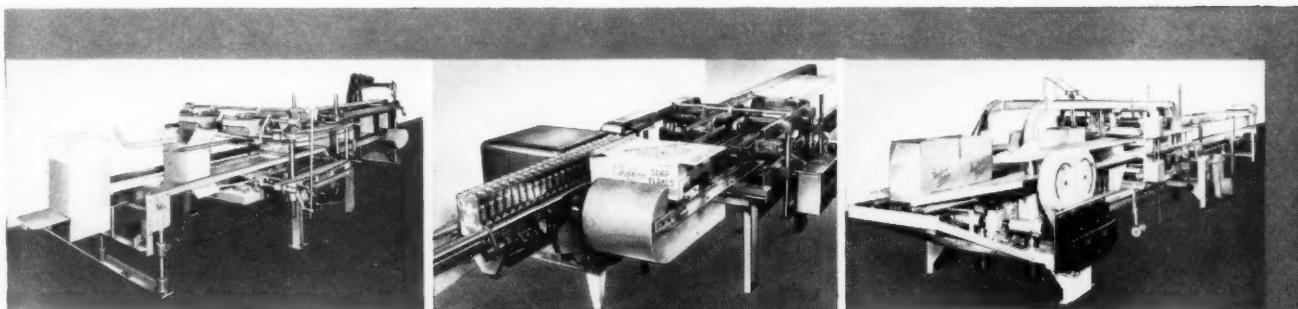
SHIPPING CASES PER HOUR...



- 1** PACKOMATIC Model D *automatic* paper shipping case gluer and belt compression sealer, applicable to practically any production requirement or plant layout.
- 2** PACKOMATIC *Streamliner* Model D gluer and sealer, for operations open to the public.
- 3** PACKOMATIC Model D case gluer and sealer with extended inlet conveyor for handling glassware, aluminumware, hardware.
- 4** PACKOMATIC *automatic* side-gluer and sealer for end sealing of cases conveyed in horizontal position.
- 5** PACKOMATIC Model G top and bottom gluer - sealer for slower production lines.
- 6** PACKOMATIC combination end-loader and side-sealer for round or rectangular, metal or paper, packages.
- 7** PACKOMATIC *Electromatic* heavy-duty top and bottom case gluer and sealer for operations requiring frequent changes to handle a variety of case sizes.



containers . . . or light and heavy solid fiber containers . . . is readily adjustable for a wide variety of case weights, lengths, widths and heights. Optional equipment includes dating (coding) devices, serial numbers. Typical users include Quaker Oats, Armour, Borden, United States Tobacco Co., Libby, McNeill & Libby, National Biscuit, S. C. Johnson & Son, Inc.

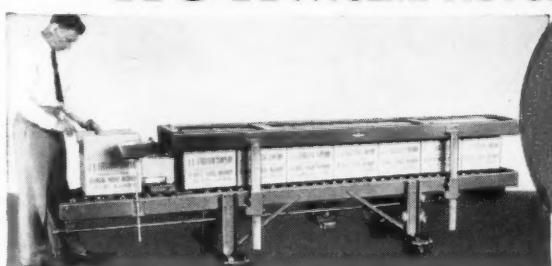


5 MODEL "G" top and bottom gluer and sealer is used for slower production lines not employing conveyors. Cases are packed on extended package plates with inner flaps folded-in and outer flaps straddling the plate. An ideal unit for glass, dinnerware and lamps.

6 COMBINATION END LOADER AND SIDE SEALER takes round or rectangular packages directly from packaging machine, assembles, and loads them into cases previously squared and registered. Users include Armour, Quaker Oats, S. C. Johnson.

7 PACKOMATIC ELECTROMATIC heavy duty top and bottom case gluer and sealer with electrically operated, push-button adjusting mechanism, for wide range of adjustments to make possible frequent, quick case size changes. Typical users are A. P. W. Products Company and Corning Glass Works.

NOW...SEMI-AUTOMATIC-SHIPPING CASE GLUER, SEALER



PACKOMATIC
SEMI-AUTOMATIC GLUER-COMPRESSION SEALER
FOR LOW SPEED OPERATIONS

\$859

Learn about famed PACKOMATIC semi-automatic gluing and sealing equipment that sells as low as \$859.00 complete . . . that is designed and built for operations where many assorted small runs are handled daily—or where volume does not justify more costly fully automatic equipment.

PRIORITY DELIVERY!

Oscar Legg's

Paper Wool Maker



Sharpens itself while running • Turns waste paper into resilient paper wool packing • Ideal for disposal of secret and confidential documents • Will not clog or jam • Easily operated by unskilled labour • Output up to one ton per day • Clean new paper produces excellent food packing.

Both
British made
throughout

Oscar Legg's
HIGH SPEED VACUUM MACHINE

Speeds up Container closing!



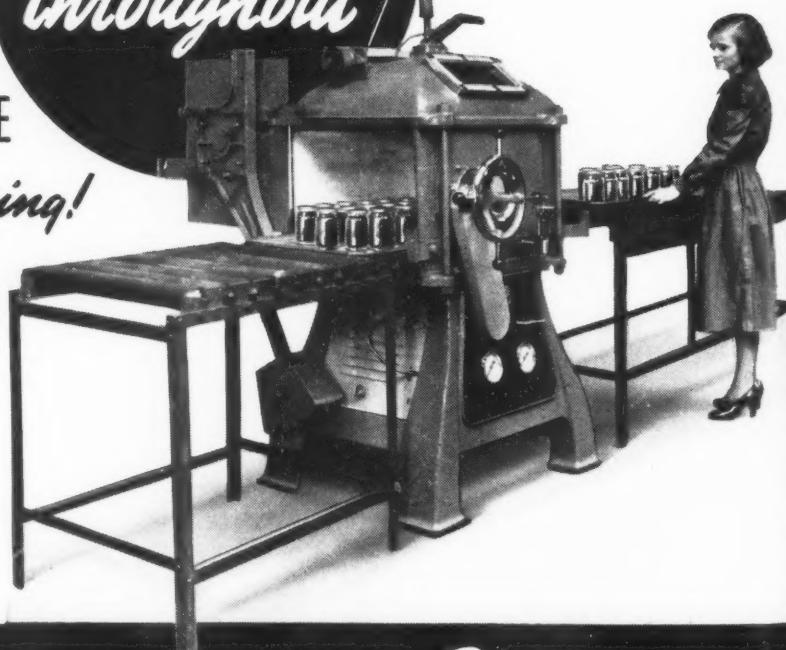
Seals Tins, Jars and Bottles by mechanical closure whilst under vacuum.

Output per minute:

300 one pound jam jars

1,000 one ounce tobacco tins.

Easy to operate • Entirely automatic • All controls and gauges on front panel • Vacuum or Inert Gas • Also operates with soldering iron for tins which require soldering.



CABLES
"OSLEGOS
LONDON"

Tingey & Co.

CODES
A.B.C. 5th Edition
and Bentleys

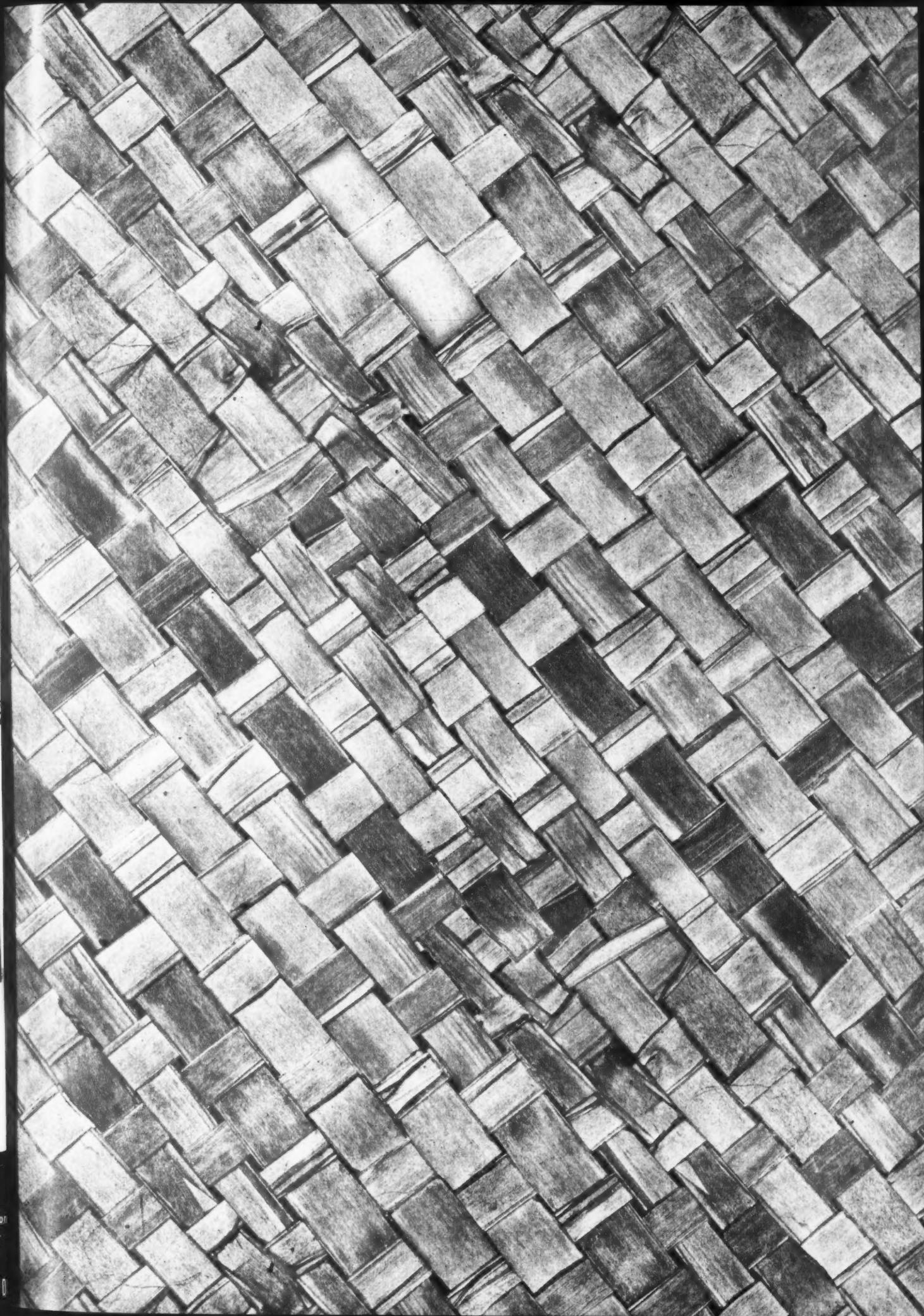
17-22 GOSWELL TERRACE · GOSWELL ROAD · LONDON E.C.1 · ENGLAND

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Edition
leys

AND



Take

The Royal Road
TO
SMARTER
PACKAGING

DECORATED
BOX COVERINGS

DISPLAY PAPERS

GIFT WRAPPING PAPERS

Add distinction and sales appeal to worthy products

Available in Rolls and Sheets

We have many pleasing designs to choose from

Write us for samples

This sample is Pattern 0185-B—White Chrome Base

Also made in other colors

ROYAL PAPER CORPORATION

Manufacturers of Decorative Papers

210 ELEVENTH AVENUE

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NEW YORK 1, N. Y.



The Canadian market for your packaged goods still exists and there's a good way to keep it supplied.

Bulk-ship your products to Rowe, the Dominion's largest independent custom packager. We will pack it for you in an exact duplicate of the container formerly exported to Canada.

In this way you may continue to supply your Canadian market—to maintain the demand for

your products among your Canadian customers. And it's the *only* way you can prevent substitute brands from stealing your market.

We will package your products in any desired type of box, carton, bag or collapsible tube. If you wish, we will design and manufacture a completely new package for you.

Mail the attached coupon with a filled sample of your container today.

A COMPLETE PACKAGING SERVICE



ROWE PACKAGING CO., LTD.
37 Hanna Ave.
Toronto 1, Canada

Gentlemen:

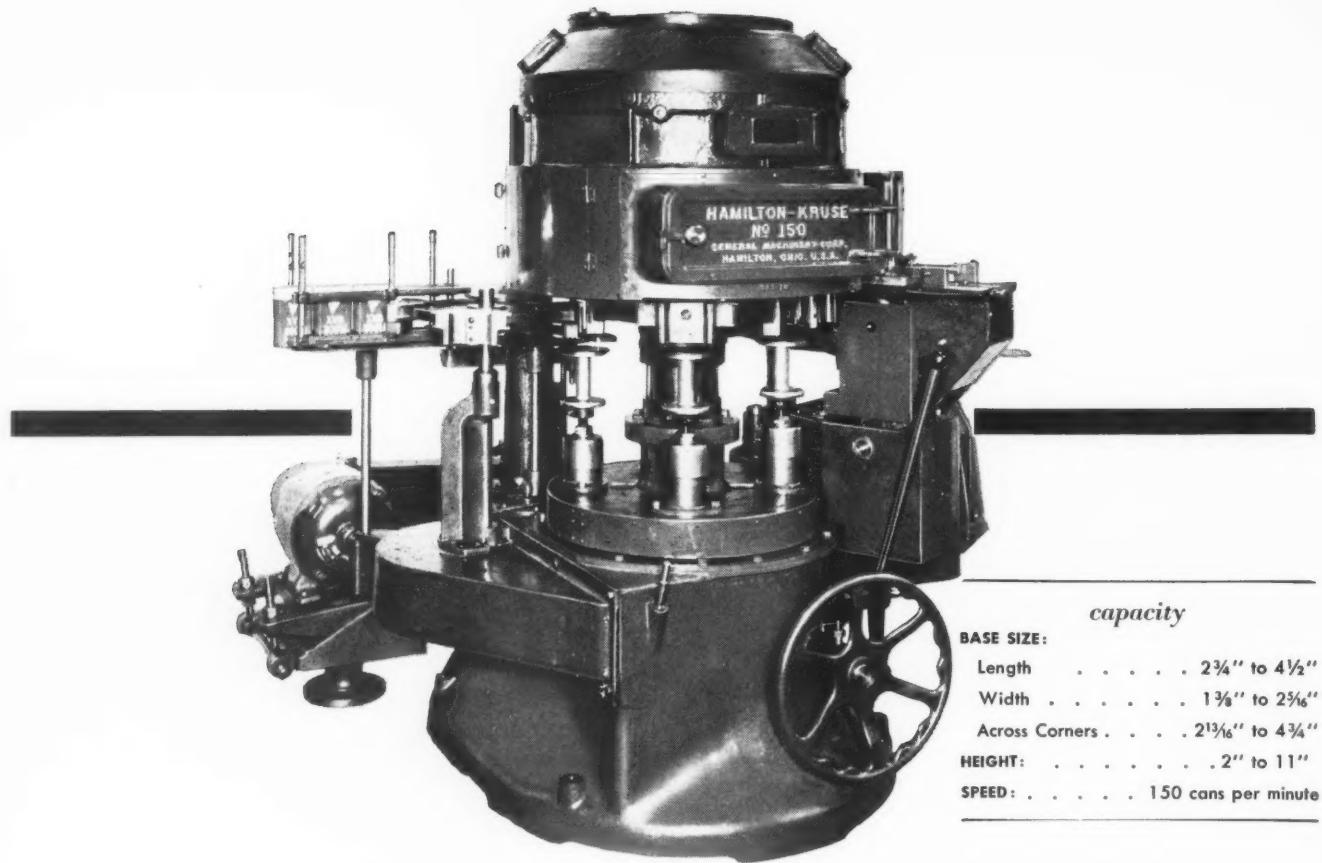
Here is a sample of our packaged product. How long will it take you to go into production? We need.....filled packages per month.

Name

Company

Address

ROWE PACKAGING CO., LIMITED • TORONTO • CANADA



capacity

BASE SIZE:	
Length	2 3/4" to 4 1/2"
Width	1 3/8" to 2 5/8"
Across Corners	2 13/16" to 4 3/4"
HEIGHT:	2" to 11"
SPEED:	150 cans per minute

New high-speed automatic end seamer

for square and irregular-shaped cans

HAMILTON-KRUSE
No 150

This is a completely automatic four-head machine, with four round rollers on each head. Cans remain stationary on base plates during the seaming operation.

Machine is equipped with its own motor and control—is high-speed, quiet, and solidly built throughout. Adjustments are easily made. Lubrication is automatic.

Designed by Mr. Peter Kruse, and built by Lima-Hamilton's Hooven, Owens, Rentschler Co. Division at Hamilton, Ohio, this seamer is in every respect a precision product that will substantially step up output of any line.

* * *

For complete information and specifications write to Roland H. Johnson, Sales Manager, Can Machinery Department, Lima-Hamilton Corporation, 60 East 42nd Street, New York 17, New York.

Chicago Sales Office: 400 West Madison Street, Daily News Building, Chicago, Illinois.



DIVISIONS: Hamilton, Ohio—Hooven, Owens, Rentschler Co.; Niles Tool Works Co. Lima, Ohio—Lima Locomotive Works Division; Lima Shovel and Crane Division.

PRINCIPAL PRODUCTS: Hamilton-Kruse automatic can-making machinery; Hamilton heavy metal stamping presses; Niles heavy machine tools; Hamilton diesel and steam engines; Special heavy machinery; Heavy iron castings; Weldments; Locomotives; Cranes and shovels.

GREATLY RESPECTED IN DENTAL CIRCLES

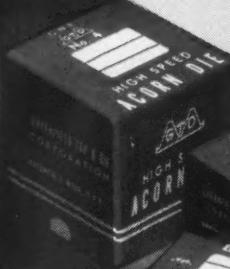


PROTECTIVE FLAPS SEAL BOX



Micromold
porcelain & plastic
LIFELIKE AS NATURAL TEETH

EXTRA SALES APPEAL IN ONE COLOR DESIGN



The Leaders
prefer
MASON "Set-ups"



ILLUSTRIOS "FAMILY" PACKAGES



POINT-OF-SALE MERCHANDISING



FAMILIAR PACKAGE IN ANY OFFICE

Since 1891 Mason designers have been creating good looking and substantial containers for practically every known product. Why not let us consider your problem?

THE
Mason

BOX COMPANY

MAIN OFFICE and PLANT: Attleboro Falls, Mass. • NEW YORK OFFICE: 175 Fifth Ave.

THE LEADERS PREFER MASON SET-UPS

**In this Man's country
you've got to sell...**

WOMEN



**JANET BLAIR
starring in "THE FULLER
BRUSH MAN" ... a
COLUMBIA production.**

AS THE MOTION PICTURE INDUSTRY capitalizes on good looks, keen merchandisers capitalize on the selling power of an attractive package.

WOMEN DO THE BUYING.

They buy ¾ of all goods sold at retail.

Leading national merchandisers gain advantage by designing, packaging, merchandising and advertising their products primarily to sell women.

They conduct nation-wide surveys to learn how women buy. They've discovered—and the experience of leading retail organizations confirms it—that women make 75% of their decisions as to what brand to buy at the point-of-sale—*on impulse!*

Hence—obviously—in the retail stores, where women react to what they SEE—the appearance of your package is a decisive sales factor. Never underestimate the power of the package.

HOW TO MAKE YOUR PACKAGE SELL!

Let Ritchie help you develop (at low unit cost) a package that meets the increasing challenge of self-service retailing. A practical, production-planned package that instantly identifies, fully protects and conveniently dispenses your product. Easy to fill or pack—to handle—to stack or display. An attractive, eye-stopping, SELLING package.



**Never
the Power**

W.C. Ritchie
and COMPANY
3840 Baltimore Avenue • Chicago 17
★ SET-UP PAPER BOXES
★ FIBRE CANS
★ TRANSPARENT PACKAGES

**Underestimate
of the Package!**

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • CHARLOTTE • JACKSONVILLE • ERIE

How to get Better Closure and Better Display The ACME-CHAMPION Single Head Stitcher

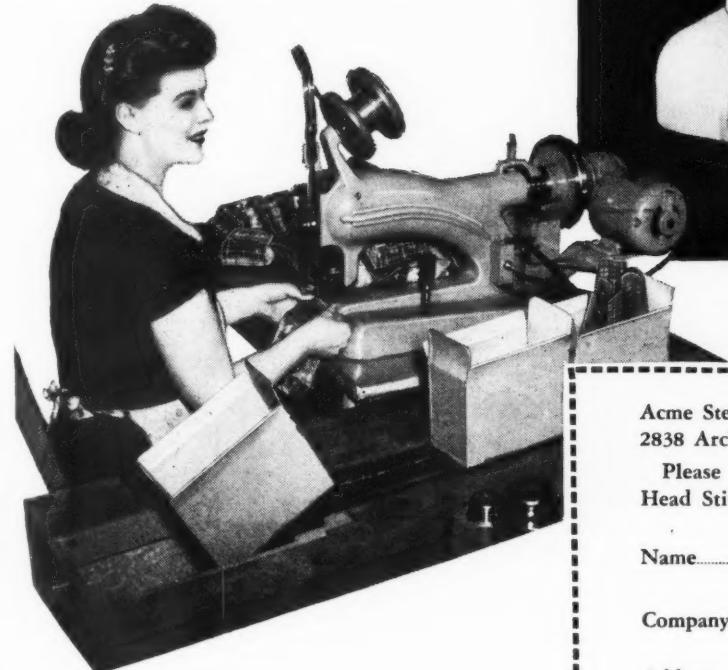
Potato chips, popcorn, fresh fruits and vegetables, cookies or candy—for any type of bagged product where closure, "see through" and card display are important—use the Acme-Champion Single Head Stitcher.

- Portable — easily carried from one location to another, wherever an electrical outlet is available.
- Electrically operated by foot-switch solenoid.
- Throat length of 13½ inches is sufficient for most carding operations.
- Movable clinchers for a flat stitch. Geared head motor. Standard crown width of staple, ½ inch, special ¾-inch crown also available.
- Multiple Head models also available.

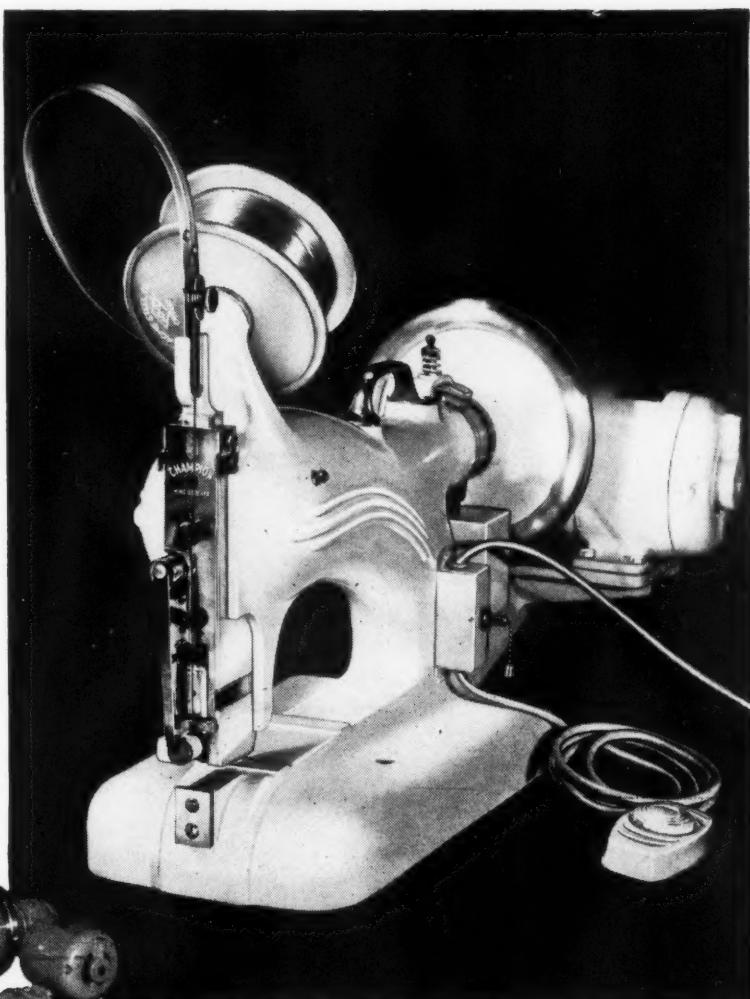
Clip the coupon for complete details.

STITCHING WIRE DIVISION

ACME STEEL COMPANY
NEW YORK 17 ATLANTA CHICAGO 8 LOS ANGELES 11



THE FAMOUS ACME-CHAMPION Narrow Stitcher Head gives operators better visibility in placing stitches correctly.



Acme Steel Company, Dept. MP-58
2838 Archer Avenue, Chicago 8, Illinois

Please send me more information on the Acme-Champion Single Head Stitcher for specialty bag stitching.

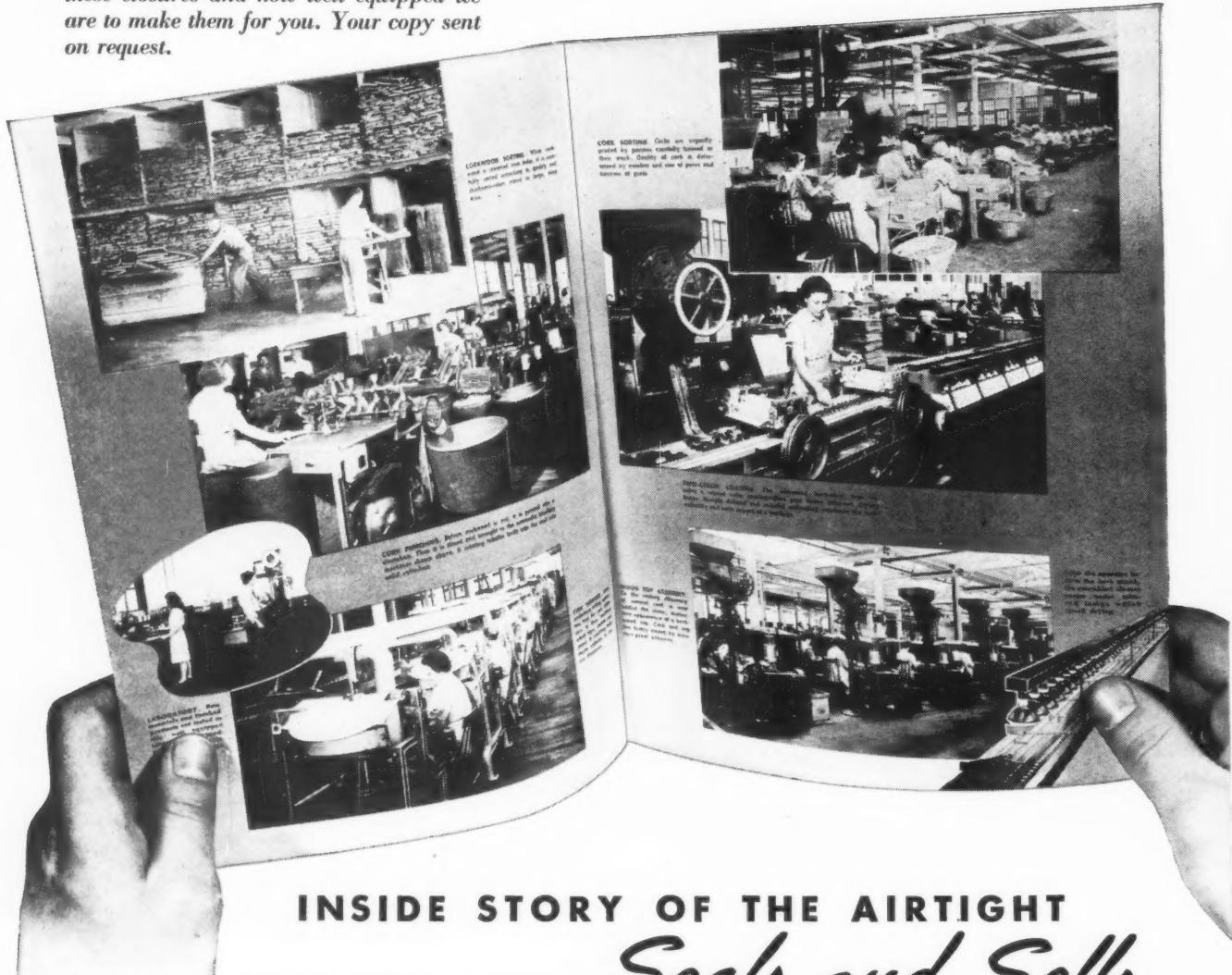
Name.....

Company.....

Address.....

City..... Zone..... State.....

Colorful folder shows you how we make these closures and how well equipped we are to make them for you. Your copy sent on request.



INSIDE STORY OF THE AIRTIGHT CLOSURE THAT *Seals and Sells*

TAKE a look behind the scenes and see why Dodge Cork Closures are a sound choice for sealing and selling your product. These pictures taken in the modern Dodge plant show the step by step manufacturing procedure.

See how we turn out a Milbossed-Top Cork—choice of many of our customers. These distinctive and thoroughly dependable closures are made of natural cork—cut to precise dimensions. Easy to remove, they are easily replaced. And they

keep the contents airtight always. Corks are firmly bonded to sturdy, hardwood tops which are styled to individualize your package. Have them embossed with your name or trademark and win instant recognition for your product.

Dodge Milbossed-Top Corks are available in standard or special designs . . . in a diversity of sizes and colors. Discuss your needs with us.

DODGE CORK CO., INC., LANCASTER, PA.



Dodge
CORK CLOSURES

DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS

Change

... for the BETTER

RED STREAK sealing tapes are the Right Tapes for better package sealing

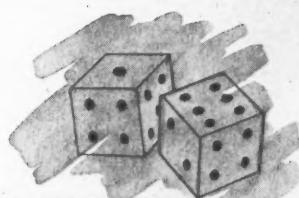
Good Paper, Good Glue and plenty of it gives Red Streak Tape quick and permanent adhesion. Red Streak Tape meets all your sealing problems and insures you that your packages are sealed **right**. Switch to Red Streak at once. Samples and prices available through your paper merchant or write us and we'll gladly supply his name.

The Brown-Bridge Mills, Inc., Troy, Ohio

NEW YORK CHICAGO ST. LOUIS SEATTLE SAN FRANCISCO
389 Fifth Ave. 608 S. Dearborn 4053 Lindell Blvd. 2416 First St. 420 Market St.



SEAL IT RIGHT WITH GUMMED TAPE



A NATURAL FOR MERCHANDISING

... that's

Sefton's String Opening Can!



Write
or Call
TODAY!
for SAMPLE!

Here's a package
that has all the requirements
of appearance, rigidity
and cost.

Plus
THESE MERCHANDISING
Extras

- TAMPERPROOF
- EASY AND NOVEL OPENING
- FULL OPENING FOR DISPENSING
- SIMPLE AND POSITIVE RECLOSURE

Available in Many Shapes and Sizes

Sefton
FIBRE CAN
COMPANY

ST. LOUIS . . . NEW ORLEANS
DIVISION OF CONTAINER CORP. OF AMERICA

DISTRICT OFFICES: • Los Angeles • Salt Lake City • Denver • Dallas • Chicago • Cincinnati • New Orleans • Boston • Detroit • Kansas City • St. Paul
Omaha • New York • Cleveland • Oklahoma City • Pittsburgh • Memphis • Nashville • Seattle • Portland

S
A

G





Spanish Lace

With its delicate Old World air, its
unmistakable feeling of quality and hand
craftsmanship—"Spanish Lace" is specially
designed to emphasize the desirability
of the fine wares packaged with it. It's new, utterly
different, completely captivating.

You can obtain this superb pattern on laminated gold
or silver foil or solid color base stocks.

The lace motif itself may be printed in a variety
of glowing color combinations.

"Spanish Lace" is available now for prompt
delivery in rolls or sheets. Write for a free sample booklet
from which to make your color selections.



NATIONAL FOIL COMPANY

913 NEWARK AVENUE

ELIZABETH 3, NEW JERSEY

BRANCH: 308 WEST WASHINGTON STREET, CHICAGO 6, ILL.

LAMINATED FOILS • SPECIAL COATINGS • DECORATIVE WRAPS

The New, SNOW-WHITE Frozen Food Carton by MARATHON

MEMO

This recent ad announced the sensational new snow-white carton for frozen foods — an outstanding paperboard product by Marathon.



Fit for the Finest Foods!

Here at last is a *snow-white*, sanitary carton for top quality frozen foods. A carton that carries the impression of purity and cleanliness right into the housewife's kitchen. Made from pure white laminated solid bleached paperboard, this Marathon one-piece carton provides a triple-barrier

against moisture vapor loss. Gives *positive* protection to the flavor, freshness and nutritive value of your products. Precision built for automatic packaging. Available now for the 1948 pack. Ask your Marathon salesman or write Marathon Corporation, Menasha, Wisconsin.

MARATHON



Samples mailed
on request

Aggressive Sampling is VITAL in this Buyers' Market



The I-L Package *Sanitape-Sealtite*

A Complete Package produced in one operation by



The new I-L Package is either a sample package or a small, unit-sale package—containing powders or tablets—complete in itself—perfectly protected—with name, content, dosage and instructions inseparable from the product and accurately positioned front and back.

Protection and Economy are outstanding features—basic requirements of the aggressive sampling clearly indicated under the present conditions of the industry. I-L Package is in addition the most economical complete package available—admirably suited to capsule, pill or powder—easily adaptable to varying contents—an ideal “tool” for the aggressive, hard-hitting, merchandising which a successful product demands in today's market. We shall be glad to give you complete details.

* Features fully covered by U. S. and Foreign Patents.

An Important New Addition to the Sanitape-Sealtite Family.

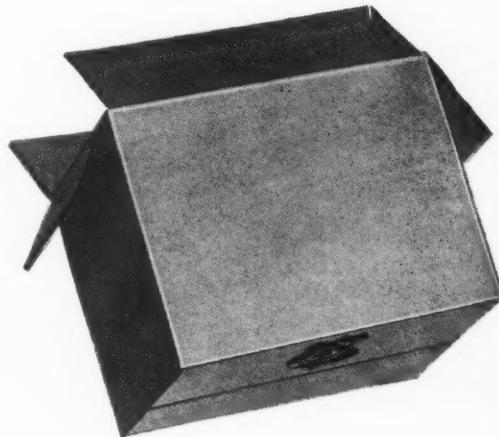
IVERS-LEE COMPANY • 215 CENTRAL AVE • NEWARK • N.J.

Sanitape-Sealtite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit-dose is sealed in its own air-tight compartment—assuring complete protection and maintained efficacy. Packages, machines and methods fully covered by U. S. and Foreign Patents and Patents Pending.



**The proof of value
is the Pedigree**

In boxes, too!



**PROOF OF *Quality*
PROOF OF *Service*
PROOF OF *Fair Price***

A box with a pedigree? Yes, you can trace a Union 100% Kraft corrugated container all the way back to Union's own forests. Every step in manufacture, from tree to finished box, is quality-controlled by one responsible management, operators of the largest Kraft pulp-to-container mill in the world.

And more than that: For more than 75 years Union has been the leader in paper packaging, producing specification bags for hundreds of industries.

The same skill in production, the same vast forest resources and mass production economies which have put Union at the top in paper packaging have also built a containerboard business which last year accounted for nearly 6% of America's total tonnage of Kraft boxes.

Today Union's board is going into corrugated containers bearing the pedigree mark of the famous Union shield. This emblem identifies an organization which, for three quarters of a century, has been fully conscious of its responsibilities to customers who must depend on the reliability of their container source for the continued operation of their own plants.

UNION Corrugated Containers

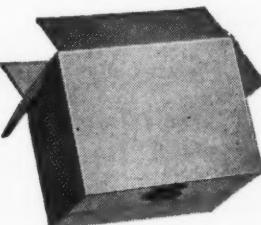
UNION BAG & PAPER CORPORATION

Principal Offices in WOOLWORTH BLDG., NEW YORK 7, N. Y.



Corrugated Container Plants:

SAVANNAH, GA. • CHICAGO, ILL. • TRENTON, N. J. • JAMESTOWN, N. C. (Highland Container Co., Inc.)



VARIETY IS
THE SPICE OF
PACKAGING, TOO!

★ PLASTIC.....

Customed designed for beauty
---molded for durability



★ SATIN.....

Elegantly styled in combination
with gleaming plastic



★ displays create sales !

★ VELVET.....

Softly rich in many shades



★ PAPER.....

Colorful and sturdy . . .
appropriate for a wide
variety of merchandise



PAPER BOXES • PLASTIC MOLDING JEWELRY DISPLAYS

112 POINT STREET • PROVIDENCE • RHODE ISLAND



Take your pick... of these and 1400 more!

Here is visual proof that low-cost, stock-mold Duraglas containers are the ideal basis for the most "extra-special" packages imaginable. Dressed to sell with your label and closure, they become unique, individual containers for your product.

Make your choice of a distinctive stock-mold container from the more than 1400 individual sizes, styles and shapes that prove—"There's an exactly right Duraglas container for your product in our drug, chemical and toiletry line!"

Duraglas BOTTLES PROTECTORS OF QUALITY

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

MAY 1948

89

get this 3 way value in your containers...

1 INSTANT EYE APPEAL

2 PERMANENT LITHOGRAPHED FINISH

3 FULL PRODUCT PROTECTION



The design, lithography and fabrication of these attractive containers have been handled by National Can for a paint manufacturer's complete line of products. Such attractive sturdy pails offer eye appeal to invite sales . . . permanent lithographed label to maintain product identification . . . full protection to safeguard product quality.

National Can, in almost 50 years of manufacturing lithographed metal containers, has successfully solved packaging problems for a great variety of products ranging from powder dispensing cans to petroleum products. There is almost no limit to the items that can be packaged in lithographed metal containers.

You can benefit by using National Can lithographed metal containers . . . designed just for your product and manufactured to meet all standards of accuracy and high quality. A complete art, design, photography and color consultation service is available for your use. Contact National Can to learn how eye-appeal and permanent lithography can be incorporated into a container built for full protection.

6543

NATIONAL CAN

C O R P O R A T I O N

Executive Offices: 110 EAST 42nd STREET, NEW YORK 17, N.Y.

Sales Offices and Plants in: Baltimore, Md. • Indianapolis, Ind. • Chicago, Ill. • Maspeth, N.Y. • Hamilton, Ohio • Canonsburg, Pa. • Boston, Mass. • St. Louis, Mo.

ALL GOD'S CHILLUN NEED SHOES

Since the rationed days of the "duration"—when shoe shortages definitely pinched—shoe manufacturers have tried manfully to keep in step with demand.

The measure of their success may be found in the 525,768,000 pairs supplied Mr. and Mrs. America—and offspring—in 1946, to the value of \$1,582,562,000. And in the \$1,716,529,000 worth—461,224,000 pairs—made in 1947.

Volume forecast for '48 is about the same as last year. What bill the well-heeled citizenry will foot for these confections from the hides of the calf, the kid, the kangaroo, and the lizard—as well as from more bizarre materials—is anybody's guess.

The bulk of this footwear, conventionally boxed, will safely find its way to retail outlets in corrugated cartons . . . many of them fabricated from sturdy MEAD .009 Chestnut Corrugating. That's the super-strong corrugated board made by MEAD of chestnut and other hardwood fibres . . . developed by MEAD in 20 years of specialization for the package trade.

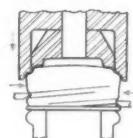
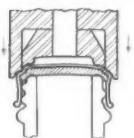


.....Cap's off!.....

with a twist of the wrist

A quick twist of the wrist—that's all it takes to remove an Alseco Cap. Yet, the full quality you put into your product is still there. Alseco TopSide R-O Seals do a topnotch job of sealing because each cap is "Tailor-Made" to fit the bottle it seals. Made of rust-resisting, friendly-to-food Alcoa Aluminum, Alseco TopSide *Rolled-On* Seals are just the closures you need. Write for full details.

"Tailor-Made" to Fit Each Bottle



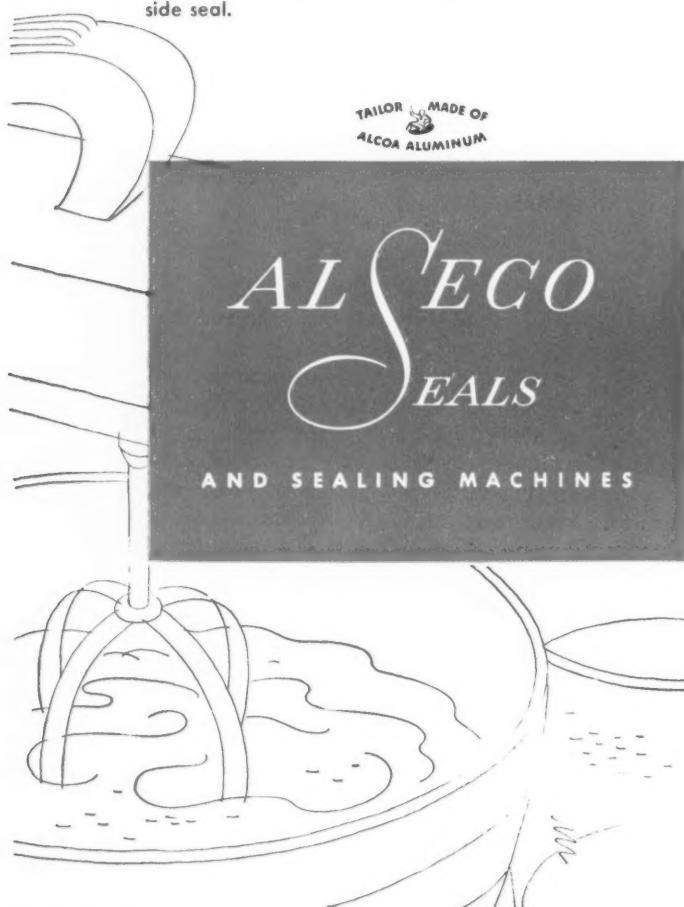
Under controlled pressure, the unthreaded cap is held down tightly on the sealing surface, embedding the lip of the bottle into the cap liner, effecting a top and side seal.

While the cap is held down tightly on the bottle, rollers move in and roll-on the threads of the cap, using the bottle threads as a guide.

High speed application

Leakproof sealing

Finger tip opening



ALUMINUM SEAL COMPANY, INC. • RICHMOND, INDIANA • SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

Another of America's Fine Products . . .

Skilfully *Packaged*
BY *Farrington*



Designer and maker of distinctive packaging for a nation's precision products through two generations, Farrington has packaged Schick since the year of this famous shaver's inception . . . Your product, too, can benefit from Farrington experience — packaging that's *engineered* to increase your sales and profits.

FARRINGTON MANUFACTURING COMPANY
General Offices: 76-P Atherton St., Boston 30, Mass., Canadian Plant: Farrington Mfg. Co., Ltd., 1191 Bathurst St., Toronto 4

It's
Packaged
BY *Farrington*



SPECIALTY BOXES . DISPLAY TRAYS . METAL SPECIALTIES . CHARGA-PLATE SERVICE

Charmers'

On the Champs-Elysees... Fifth Avenue . . . Wilshire Boulevard . . . Rowell adds exciting charm to cosmetic boxes for face and dusting powder.

Sleek, gay, and attractive, they catch the feminine eye and find their way into the tailleur of the most sophisticated.



precision
color
printing



pharmaceutical
boxes



50 years'
experience

E.N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes

BATAVIA, N.Y.

Modern packaging



Vol. 21 No. 9 May 1948

DEPARTMENT STORES and specialty shops, with the return of competition, are demanding individualized papers for wrappings and gift box coverings. A. Harris & Co., Dallas, Tex., has adopted six special designs: French poodle pattern, Texas pattern, Father's Day wrap, bon voyage wrap, birthday design and baby wrap. Striking example of use of "local color" is Macy's stylized reproduction of its location at Herald Square on its last year's Christmas box coverings—to be repeated this year. Boxes for the May Co., Los Angeles, are examples of lithographed box wraps, gaining wide favor. Many of them are exclusive, or exclusive one to a city.



1948 GIFT LINES

A year of increasing competition demands quality packaging

and careful attention to practical, useful merchandise

Gift packaging is showmanship. And this is a year when greater showmanship is necessary to sell goods. For the first time since pre-war years, marketing and selling are the governing factors in business planning. Many businesses have felt the leveling off of peak demand. Some, especially in luxury goods lines, are actually feeling the pinch.

The slowing up of cosmetic and jewelry sales began more than a year ago. Just recently there have been reports of sour spots in the sweets business. Candy production since the middle of February has been the lowest in recent months, according to the National Confectioners' Assn., and in some localities sales have

been reported by retailers to be off as much as 25%.

These signs of the times are making every industry look for new methods of increasing sales and of using every selling aid.

Dressing up merchandise for gift selling during the Christmas season and other promotions such as Easter, Mother's Day, Valentine's Day, as well as for year-around wedding, graduation, birthday, baby presents, etc., is one of these aids. Gift packaging of stock items in many lines of manufacture is big business and represents a large portion of total sales.

One large textile house does something like \$2,000,000 in gift sets annually. A certain cosmetic house is re-



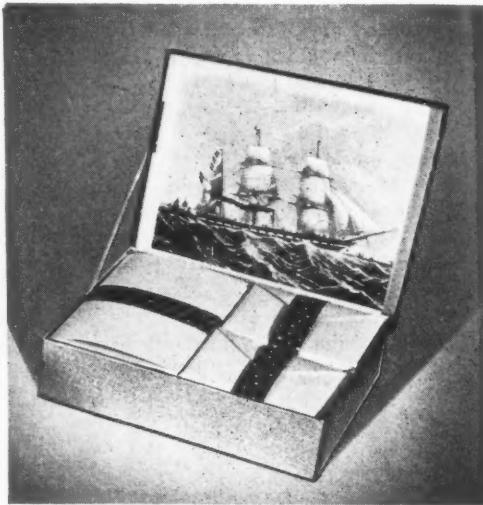
SIX-PANEL FOLDER combines a package and an A-B-C book holding four children's handkerchiefs—a new gift idea introduced by Robinson & Golubier, Inc., makers of the handkerchief, and Elsie Enterprises, division of The Borden Co. Elsie-illustrated mailing envelope accompanies package.



TOPICAL DESIGN can be big promotional asset. Lithographed wrap for White & Wykoff's Desert Blooms stationery package is a good example. When it was launched, several magazines were running articles on desert flowers and "Desert Flower" perfume was introduced, creating added news interest.

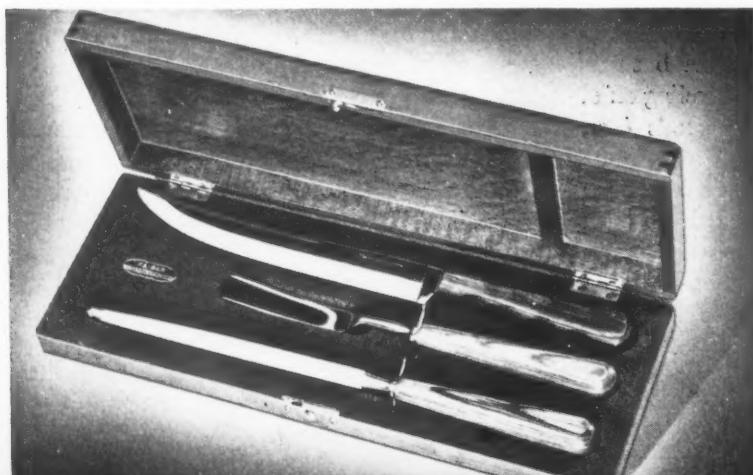


SOAP SCULPTURES often require whimsical settings that can be supplied by cleverly die-cut cartons. This carton for Elsie in her boudoir, put out by Lightfoot Schultze, has a real mirror and folds up to take home.



DEALER HELPS are sometimes essential in selling gift assortments. Several illustrated box lids in the Wayne Maid line of William W. Fitzhugh, Inc., writing papers provide dealers with possibilities for pictorial display interest.

NATURAL WOOD BOXES can express fine craftsmanship. Wood-handled Kabar carving set (illustrated at left) is housed in a beautifully finished wood box with the base grooved to hold cutlery and flock sprayed. The walnut-finished, two-compartment box for fishing flies (right) bears the New England Council's seal done in green and cream coloring on the inside lid. Box complete is promoted by the Council's fly committee.



ported to have done as much as \$6,000,000 in gift sets in one year. A leading distiller ordered more than 2,000,000 gift cartons for whiskey sold during the last year's holiday season. Some of the Western fruit growers do hundreds of thousands in mail-order gift packages.

Almost any product is a good subject for gift packaging, as the wide diversity of items illustrated with this article show. But the achievement of volume sales requires up-and-coming package planning whether it's for confections, foods, tobacco, stationary, cosmetics, hosiery, lingerie, blankets, household appliances, cutlery or fishing flies.

This year there is every opportunity to win gift sales through packaging showmanship. With few exceptions, every type of glamour material is available in ample supply. Suppliers are aware of the need for early deliveries and are ready to assure shipments on schedule, but urge customers to complete their preparations early to avoid possible disappointments.

Price situation

Early buying of supplies and previews of 1948 gift packages indicate that there is greater demand for quality in spite of spiraling prices. Some suppliers estimate that prices in certain types of decorative papers have increased as much as 40 and 50% above pre-war levels and that there are no signs of price decreases in the immediate future, due to increased labor and basic material costs. These higher prices, however, are not deterring users, they say, from purchasing better quality materials regardless of cost.

Paper and box-cover designs

Growing demand for improved quality is reflected, paper suppliers say, in the marked interest in improved designs for all types of gift-wrapping papers and box coverings—many of them exclusive or custom-designs. Nashua Gummed & Coated Paper Co. reports that its art department is being kept under constant pressure for art work embodying new specialized motifs and color treatments for papers to be used for the gift pack-

aging of cosmetics, candy, jewelry, clothing, hats and toys. To satisfy the demand of customers who do not desire individually designed papers, this company has also been revising and revitalizing its lines of stock papers, embodying new color treatments and for the first time showing five-color rotogravure prints on metal foils.

An increasing number of exclusive-design jobs are reported by such decorative paper firms as Hampden Glazed Paper & Card Co. and The Marvellum Co. for use as store gift-box coverings, particularly decorative foils, embossed papers, dull-coated surfaces, etc., where what are said to be more artistic base finishes are demanded. Improved methods of supplying such papers in roll form to box makers also make such papers more convenient for handling. They are slightly higher in price than other types of printing, but are in great demand when certain design and color effects for paper wraps are desired.

Design themes are varied with continued interest in florals, small impressionistic patterns, bold conventional designs, plaids and stripes. Both bold and pastel colors are preferred. One company is introducing a special line of baby gift-wrap papers to be released this month and says other new juvenile designs will be released soon. Wood grains and embossed leather patterns are also in high demand.

Leading designers in the paper field are pleased with the growing acceptance of "looser" techniques in paper design similar to the gift wraps used by Lord & Taylor. The public is becoming accustomed to such design through its use in interior decoration and in advertising art. Progressive users of gift papers are taking notice of such trends. This is all to the good, the designers say, as a means of getting away from the very tight conventional patterns used for so long. The use of designs with local interest, such as Macy's Herald Square box wraps adopted last Christmas, are also in high favor.

Ever-popular demand for plain papers in high fashion colors both in dull and high gloss finishes is indicated by Bulkley Dunton sample books.

New printing facilities and increased plant capacity

QUEEN'S RANSOM is the name of this plastic chest made of polystyrene which Herb Farm Shop uses to package this gift combination of its Royal Purple perfume and cologne. It is suitable for re-use to hold jewelry or cigarettes.



VICTORIAN BELL JARS are popular decorator items for displaying art objects. Owens Brush Co. packages an acrylic brush set in a real glass bell jar suitable for re-use as a decorative item in the home.





PRESENTATION CHESTS



NEW MERCHANTISING approach is required when staple items are presented in these highly decorative leatherette containers, but there's a good profit margin for the manufacturer of foods, tobaccos, sports items, etc., who adopts such gift packaging and has his salesmen market them in specialty food departments, gift shops, etc. Such packages are also effective for mail orders, as illustrated by the "Pleasure Chest" of Ritter foods, packed and sent anywhere postpaid with gift card enclosed.

in the decorative-paper industry mean improved quality and a wider range of printing possibilities. Several firms report new multi-cylinder rotary presses, aniline intaglio and embossing equipment.

Lithographed box coverings

Lithographers who supply printed box coverings report renewed interest in gift packaging by department stores and men's and women's specialty shops—a trend they feel is bound to grow as selling conditions become more competitive. There is also a revival of interest in lithographed gift packages for many luxury and staple items.

Lithographers in this field are making available both exclusive designs and those which are exclusive to one store in a city, thereby giving opportunity for sharing the savings on volume production.

Usually such box wraps are for large-volume store operations and color schemes are pretty much the traditional. U. S. Printing & Lithograph Co. reports that 75% of the Christmas box wraps it produced last year had red backgrounds, another 10% were white backgrounds, while only the remainder were in specialized colors such as greens, grays or blues. Papers vary according to the users' preferences, but for the most part lithographing is on coated paper and varnished.

Transparent packaging

The rigid transparent container continues to hold a top place in gift packaging. Every manufacturer knows that to let the shopper see his merchandise is half the sales battle. New methods of high speed production are widening the use and reducing the costs of such containers.

Chatham Mfg. Co.'s transparent package for several color swatches of blanket wool is one of this year's novel uses for an acetate box. No longer is it necessary for the donor of a blanket to gamble on the selection of colors. Instead, a gift certificate is presented with the little box and the recipient may go to the store and select the color of a Chatham blanket she prefers. This same packaging idea might be adapted to other types of bulky soft goods requiring color selection.

A fast-moving Christmas item for D. Lisner & Co. last year was a string of pearls hung on a miniature Christmas tree placed inside a cylindrical box of cellulose acetate.

An unusual use of interior construction with transparent material is exemplified by Roll-O-Coasters by Beacon—a set of eight coasters placed in a cylindrical acetate box separated inside with cellulose acetate rings about a half inch high to hold the coasters apart as though floating on air. This carries out realistically the roller-coaster idea which is illustrated in white printing on the box.

Chain store promotion

Several large chains have used tremendous quantities of stock acetate boxes, filled by clerks during off-peak hours with related items such as three pairs of stockings,

toiletries items, etc., for selling as gifts. This practice has the advantage of increasing unit sales and reducing the trips to the cash register. Empty boxes displayed on various counters were promoted by clerks for selling with two or three related items, also to stimulate a larger sale. One transparent-box maker delivered almost a million round boxes in three sizes to one chain last Christmas for this purpose, it is reported by Celanese Plastics Corp.

Films and foils

Transparent films and aluminum foils are among favored materials for many gift packages. Films such as cellulose acetate, Pliofilm, polyethylene and saran are readily available in required quantities. Metal foils, particularly paper-mounted foils, in some quarters are said to be still in somewhat short supply. The demand for cellophane for regular packaging purposes has continued to absorb whatever increased supplies are available and it does not look as though there would be too much increase of this film for gift wrapping.

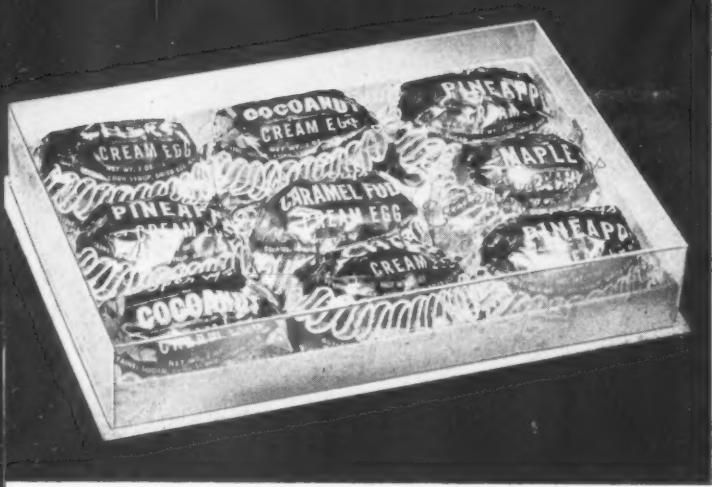
Prices for these materials are reported to be firm, with slight increases for cellophane, Pliofilm and acetate, and a slight decrease in the case of polyethylene. This film is mentioned in connection with gift packaging since it is expected that polyethylene bags for the packaging of oven-ready frozen poultry will stimulate a good deal of interest in gift packaging of selected birds, according to Shellmar Products Corp. For this purpose, the bags are printed with appropriate designs.

Plastic jewelry boxes

The jewelry industry has widely accepted molded plastic gift containers, most of them with re-use appeal. Such boxes, most frequently of polystyrene, are well adapted to this type of merchandising, because jewelry items are usually in price ranges to absorb the cost of a well made plastic box. These boxes are gaining acceptance partly because of the alertness of designers and molders who are promoting the same box to various manufacturers, but with exclusive rights for each in his own field. The polystyrene graduation-hat packages for Bulova watches, Coro pearls and Evans lighters and compacts are excellent examples of this procedure and show how mold costs may be amortized by this method of merchandising.*

Similar examples are two injection-molded polystyrene boxes recently adopted by L. Heller & Son for La Tausea and Deltah pearls. The former, called the "Green Goddess," is molded in oval shape after the design of an old French box and is made of mixed colors to simulate jade. It is satin lined, with the name gold printed on the satin. There is no trade identification outside to mar the box for re-use. The other box for Deltah pearls is rectangular, with white cover and red base. The base is cushioned with satin. The lid is lined with leatherette paper and carries a foil Deltah label. This, too, is suitable for re-use. The same molds used for the making of these boxes will be modified for use by

* See "Mortarboards For Keeps," p. 142, this issue.



EASTER EGGS, nine in a box with transparent cover, make attractive collection that increased unit sales of these popular chocolate confections put out by Sperry Candy Co. of Chicago.



MEAT DEPARTMENT gift sales are stimulated by colorfully wrapped hams, slabbed and sliced bacon. Swift & Co. is a leader in such promotion.



FRUIT CAKES offer endless packaging opportunities. This one is cellophane wrapped and placed in a foil-laminated paperboard carton with a transparent window.

other jewelry firms. One of them is to be used by an importer of watches for the gift packaging of wrist watches.

Several suppliers are combining plastics with velvet for the jewelry trade to obtain the striking display of the plastics but at the same time to soften the appearance with velvet.

The beauty of acrylic plastics is much desired for gift packages, but in the past the price of such containers has been prohibitive for many packaging purposes. According to Steiner Mfg. Co., formed sections are taking the place of cemented parts formerly used, which leads to better construction and lower prices. This forming can be done by blowing, vacuum, vacuum snap-back, ridge forming, etc.

Metal boxes

Metal boxes are giving some concern owing to the critical steel situation. Arrow Mfg. Co., a large part of whose volume is in metal boxes for the jewelry trade, says it has attempted to use aluminum in place of steel, which serves the purpose and is lighter in weight but which is also getting somewhat critical and is slightly higher in price.

Color on glass—private molds

The use of color on glass seems to be on the increase and there is a definite demand for ceramic work, both in the package coloring and label application.† There is no doubt but what this feature is in the picture permanently, according information from the T. C. Wheaton Co.

There is greater demand for fancy shapes in glass and a desire for private molds, according to Swindell Bros., 70% of whose business is in the cosmetics field, but the current leveling off in the cosmetic industry has made many companies hold off in buying.

It takes about six weeks to get delivery of private molds today.

Prices in the glass industry are more or less stable in

† See "Ceramic Color Labeling," p. 120, this issue.

CHEESES are always an acceptable gift when attractively boxed. This lithographed wrap on high-gloss stock with Wisconsin dairyland appeal is suitable for year-around sale.



MF
in
app

CAL
this
and

POL
pearl
Poly



METAL BOXES, colorfully lithographed in appealing designs, in round cannister or other types of shapes have strong appeal for the packaging of cookies, fruit cakes, candies.



JAMS AND JELLIES made by Goodman Bros. in squat glass jars with lithographed floral caps win year-after-year acceptance in specialty food departments.

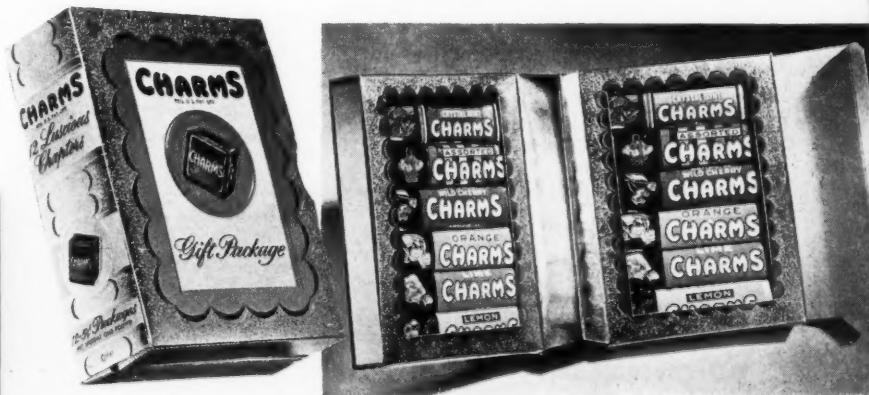


CALIFORNIA PROMOTION par excellence is this foil-laminated, set-up box for confections and fruits made in shape of a map of the state.



METAL FILIGREE, a unique container adopted for Helen T. Brook Valentine assortment of chocolates—a handy re-use box for many purposes.

POLYETHYLENE BAGS give increased appeal and protection to selected fowl for gifts. Polyethylene film can now be color printed.



BOOK OF CHARMS will be the leading gift package to be promoted this year by the Charms Co. for its assorted flavors of foil-wrapped fruit drops. Package is of folding-box construction, aluminum foil laminated. When opened, 12 packages of Charms are revealed—six in each side of the box—through transparent, die-cut windows.



PERFORATIONS permit dealer to use Corby's whiskey carton holding two bottles for Christmas counter display.



SINGLE-BOTTLE cartons are widely used and present colorful counter array. These are for three Schenley brands.



PRINTED ACETATE cover provides shadow-box gift package for Italian Swiss Colony wines. Base is of folding-box construction, double walled with glued side panels. A decorative die-cut deck provides support for chianti bottles, while two-piece folding false bottoms support the two bottles for port and sherry displayed in center.



"X-RAY" PACKAGE is what Carstairs calls its distinctive gift carton for the 1788 bottle of whiskey which won an award in MODERN PACKAGING'S 1938 All-America Package Competition. The famous bottle is reproduced on both sides of the carton. Other panels carry reminder messages that here is an appropriate holiday gift for "The Man Who Cares."



DISPLAY BOX for Schenley is a three sectional gift carton when closed, a counter unit when open. It is lithographed on coated stock, varnished and mounted to 0.065 finished thickness.



comparison with other supplies, but an advance in prices is expected to meet the advance in costs of production.

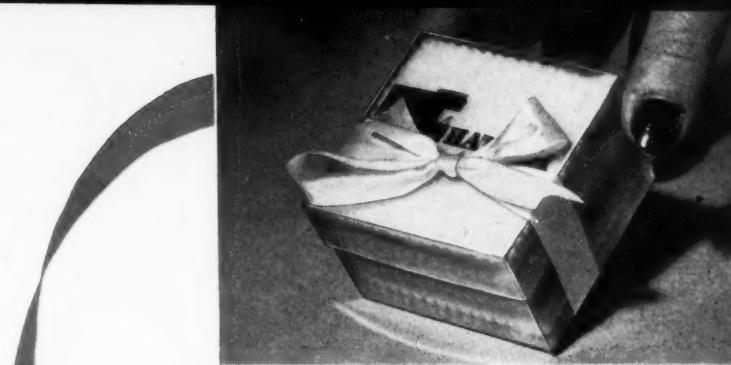
Pottery

As more ware is coming off production lines, there is a revival of interest in pottery containers for cheeses, syrups, honeys and other food specialties. One firm is using shaving mugs for soaps and pottery is being used for tobacco jars.

Decorative corrugated

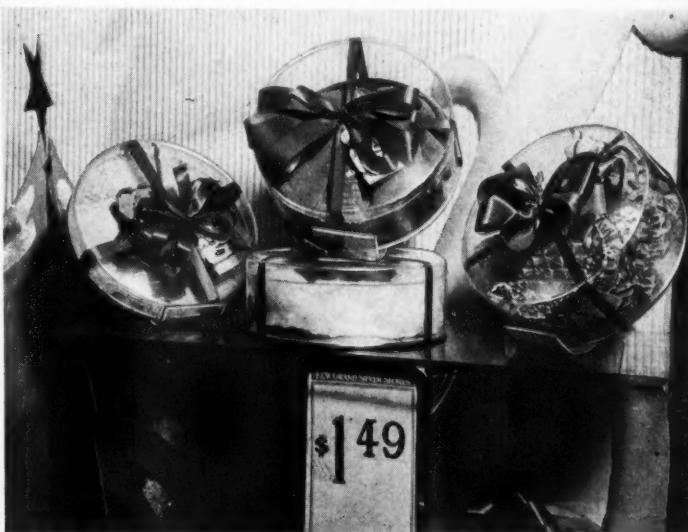
This is a year when practical items will be among top bidders for gift appeal. Aluminum ware, vacuum cleaners, dishes, fancy foods and even garden hose are appearing in packages that have gift appeal on store shelves.

Such packaging must necessarily be on an all-purpose basis to give protection as well as sales appeal. For such products there is an increasing demand for corrugated containers to serve as gift boxes. Package engineers are designing more and more boxes to serve as a shipper, a merchandiser or display container, and a convenient carry-home package for gift items, according to Ohio Boxboard Co. The suitcase and trunk-style containers for toy electric trains and other types of toys,



BLANKET SWATCHES in transparent box, with gift certificate for a Chatham blanket, give recipient opportunity to select favorite color.

CHAIN STORES used millions of transparent boxes last Christmas, filled with related gift items by clerks in off-peak hours. Such "pre-pack" suggestions ring up larger unit sales.



FULL-SIZED HAT BOXES of transparent acetate were window-stopper gift packages for Coty's floral bedecked perfumes at Easter time.



TRANSPARENT RING of acetate between each coaster shows ingenious transparent interior packing to give illusion of their floating on air.

JEWELRY BOXES



CARRY-ALL BAG, complete with mirror and compartments for cigarettes, lipstick and compact, is this metal-framed box for Laguna pearls.



SELF-ELEVATING PILLOW is unique feature of this luxurious white leatherette-covered brass box recently designed for Parker 51 pen and pencil sets. When box is opened, the satin pillow rises slowly to level of base by means of the special spring construction underneath pillow.



METAL AND VELVET are worked in interesting combination and shape for these de luxe boxes for Winton wrist watches. Trade name is stamped on satin linings.

and the new containers for vacuum-cleaner sets are excellent examples.

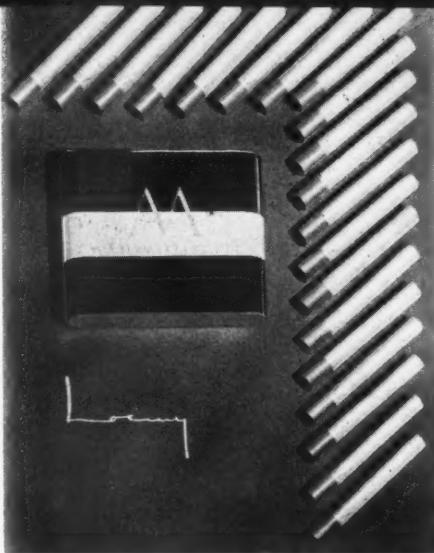
Corrugated liner board, now being made in a variety of attractive colors including gold and silver, offers new opportunity for utilitarian packaging with gift appeal in these fields. Additional colors may be printed on the colored liner board, giving the containers increased attention value besides providing the product with a strong, protective covering.

Ribbons, ties, tapes

The user of decorative embellishments for gift packages has an almost unlimited selection of standard and new types of ribbons, ties and tapes from which to choose. On the market now are Freyberg Bros.-Strauss' interesting ribbons made of non-woven textiles in many popular colors. Striking for many applications are the rayon-and-acetate-laminated ribbon made by the Facile Corp. which are sold through a number of distributors. Unusual, too, are the metallic yarns and tapes put out by the Metlon (*Continued on page 197*)

TWO POLYSTYRENE BOXES adopted by L. Heller & Son for Delta and La Tausca pearls. Labeling is inside lids so covers are not marred by trademarks. Oval box, called "Green Goddess," is reproduction of old French box, simulating jade. Boxes are injection molded, economical to make.





PHOTO, JOSEPH FOLDES.

This month's COVER PACKAGE*

No. 17 of a series

THE PROBLEM:

The "new look" in a cigarette package for women exclusively is desired by a manufacturer of nationally distributed tobacco products. In assigning the problem, the manufacturer specifies only that he wants to introduce a specially blended cigarette under a new trade name. He will aim at a quality market, asking slightly more for 20 cigarettes than popular brands get. The package must complement accessories a woman normally carries in her handbag. At the outset, it is agreed that cost factors may be adjusted and design revised according to how much promotion and investment the manufacturer decides upon after consumer tests are run in controlled areas.

THE SOLUTION:

A restrained, high-fashion package design is selected from a half-dozen comprehensive sketches. Because a woman's handbag presents a housekeeping problem when loose tobacco spills, a rigid paper-board container is specified. For the feminine look, ends are rounded and the box is a telescope type with a shoulder. The cigarettes are tipped in colored paper and the designer suggests—if the stock-control problem is not prohibitive—that the color of the tip may be changed according to prevailing fashion. The full-wrap label is lithographed in black and gold to harmonize with most feminine accessories. The brand name "Mademoiselle" is lettered in a simple and dignified style and the initial is repeated on the cigarette. Legal information is printed in gold within the lower black band on the reverse face of the package.

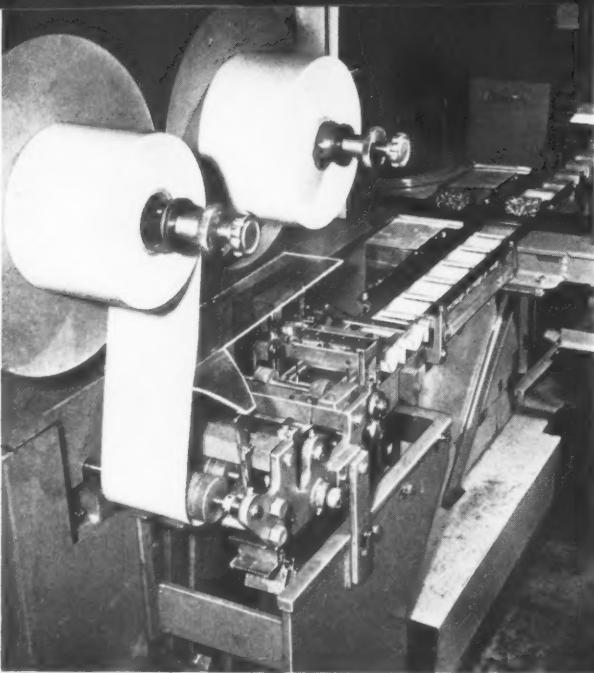
THE DESIGNER:

The name on the cover, "Loewy," may in the public mind be most readily identified with the design of streamlined trains, planes and automobiles, but in packaging it has for many years distinguished some of the outstanding sales successes. Packaging is one of four fields of design in which Raymond Loewy Associates operate, and in four of the six branch offices (New York, Chicago, Los Angeles and Sao Paulo, Brazil) a packaging division is maintained. In many cases, packaging is to Loewy Associates but a part of a completely integrated design program—from building to product to package. This interrelation of design departments and the resulting admixture of opinion, knowledge and tastes, Mr. Loewy claims, give a special flavor to his packaging design. Among Loewy's notable packaging clients, present and past, are Armour, Kroger, Lever Bros., Schenley Distillers, Roma Wine, Standard Oil of Ohio, United-Rexall Drug Co., S & W Fine Foods, Standard Laboratories, Eversharp and International Harvester Co. Bond Morgan is chief of package design.



RAYMOND LOEWY

* Brand and company names used in the hypothetical design are purely fictitious; the design remains the property of the designer who conceived it for this cover illustration. Any resemblance to any existing package is purely coincidental.



WAXED PAPER IS CUT from rolls, folded and positioned in conveyor cups to receive prints of mince meat. Accuracy of cutting saves 10,000 lbs. a year.



PRESSED CAKES of mince meat travel on a conveyor belt from caking machine to the packaging line, where they are individually put in position in the paper-lined conveyor cups.

MINCE MEAT AT HIGH

Substantial savings have been effected in the packaging of Borden's None Such brand of condensed mince meat with improved packaging equipment recently installed in the company's Syracuse, N. Y., plant. The equipment—two wrappers and one cartoner, closely integrated—completely packages this unusually difficult product with an insert folder in a continuous-line operation at the rate of 160 packages per minute—double the speed of the old equipment.

As an example of savings effected by improvement of small details, there is the matter of accuracy in cutting the waxed-paper squares in which the cakes of mince meat are wrapped. By saving a quarter of an inch in one direction and a half-inch in the other on each package, the new equipment cuts requirements for waxed paper by 10,000 lbs. a year.

Borden's None Such mince meat is sold in two forms: *wet*—packed in glass jars—and *condensed*—packed in paperboard cartons. The latter is by far the biggest seller. The mince meat has been an exclusive Syracuse product for the past 63 years. From the selection of the ingredients (apples, raisins, currants, citrus peel, sugar, starch, salt, spices and cooked beef) to the final casing for shipment, great care and efficiency are required. This calls for modern packaging methods and equipment.

The task is made harder—particularly in the wrapping of the condensed mince meat—because there is the problem of handling the soft, sticky, easily de-

formed and sometimes imperfectly formed print from the time it comes out of the press to its final cartoning and casing. It cannot—like cigarettes or soap—be moved by itself over machine parts or the parts will soon become coated with the sticky mince meat.

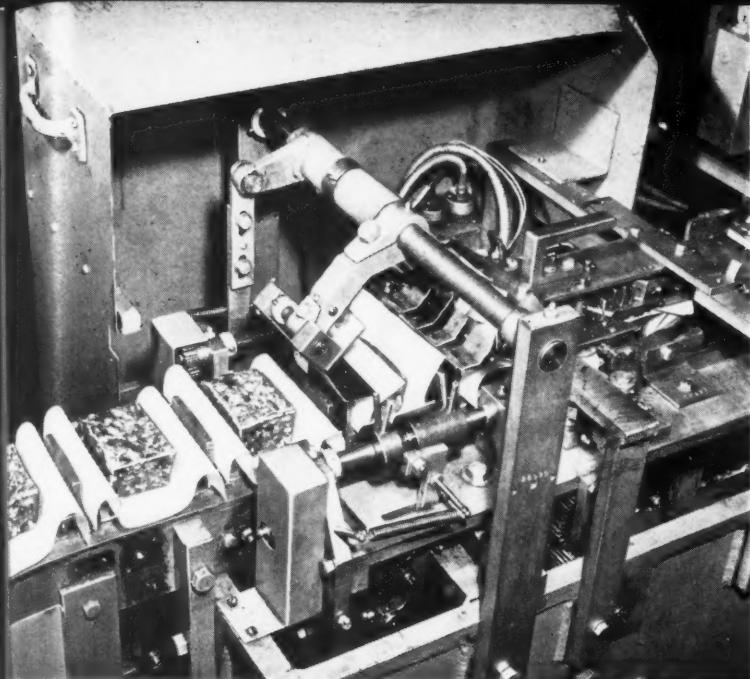
Thirty years ago when a packaging line for the condensed mince meat was first installed in the Syracuse plant it was the last word in efficiency. The difficulty of handling the soft prints was overcome through carrying the prints by means of a series of waxed-paper-lined pockets in an endless chain. The metal pockets were so designed that they acted as a mold, holding the mince meat prints firmly in place at all times, but still leaving them sufficiently exposed so that wrapping, folding and sealing could be accomplished easily.

Because the shelf life on condensed mince meat was, and is, relatively long and in order to meet the Federal Food and Drug requirement for net weight, a special type of waxed paper was developed to protect the cake of mince meat against either loss or gain of moisture.

The combination of wrappers and one cartoner in the first packaging line produced approximately 80 packages per minute. By 1940 the demand for None Such mince meat had reached a point where this capacity was insufficient. But with the war, many ingredients of the product became unavailable so that it couldn't be produced. Likewise, new equipment couldn't be had.

As soon as the war was over Borden's found customers asking when None Such condensed mince meat would be back on the market. Output of the product was re-

* The Borden Co., New York.



FOLDING SECTION of wrapping machine. In this operation the waxed paper sheets cut from the roll are folded over and creased, then heat sealed around the prints of mince meat.



INSPECTED as they leave the wrapping machines, the wrapped cakes are divided into two separate lines to feed the two intake belts of the cartoning machine.

PHOTOS COURTESY THE BORDEN CO.

SPEED

Borden Co. doubles speed and cuts costs with improved equipment that automatically wraps and cartons the product. By A. F. STEVENSON*



sumed as soon as the necessary ingredients could be supplied again and demand again exceeded supply.

In December, 1947, the new machines were installed at the Syracuse plant and immediately production was doubled. The new line delivers a carload a day.

The original pocket conveyor principle is retained in the new equipment. At the head of the intake conveyor, a precise mechanism cuts from a roll of waxed paper a wrapper of the exact size required. The wrapper is automatically transferred to a pocket and is carried to a point where another belt crosses carrying the soft cakes of condensed mince meat from the press which has formed them. The print of mince meat is taken from the discharge belt of the print machine and placed in the conveyor pocket. Inspectors check to see that each pocket has its wrapper and cake.

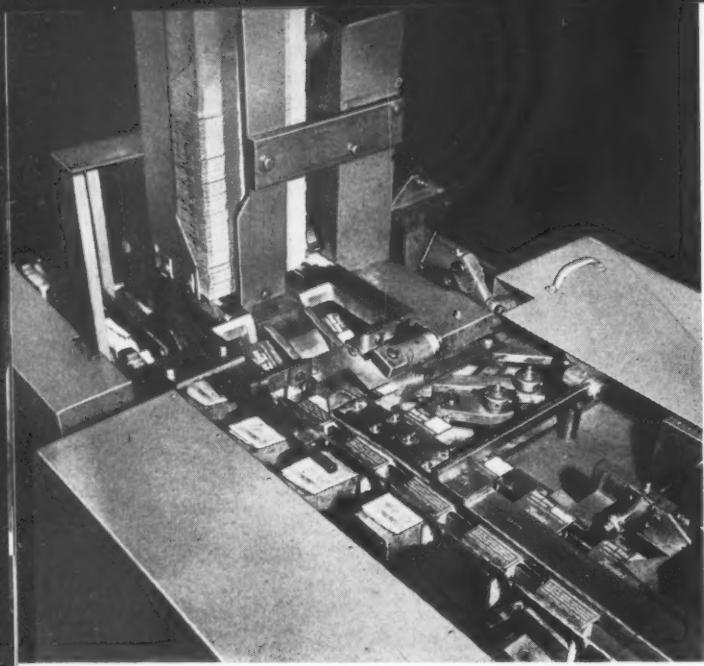
At the next station on the wrapping machine, steel

PRINTED LEAFLET of instructions is folded and positioned over leading end of the wrapped cake just prior to its insertion into carton

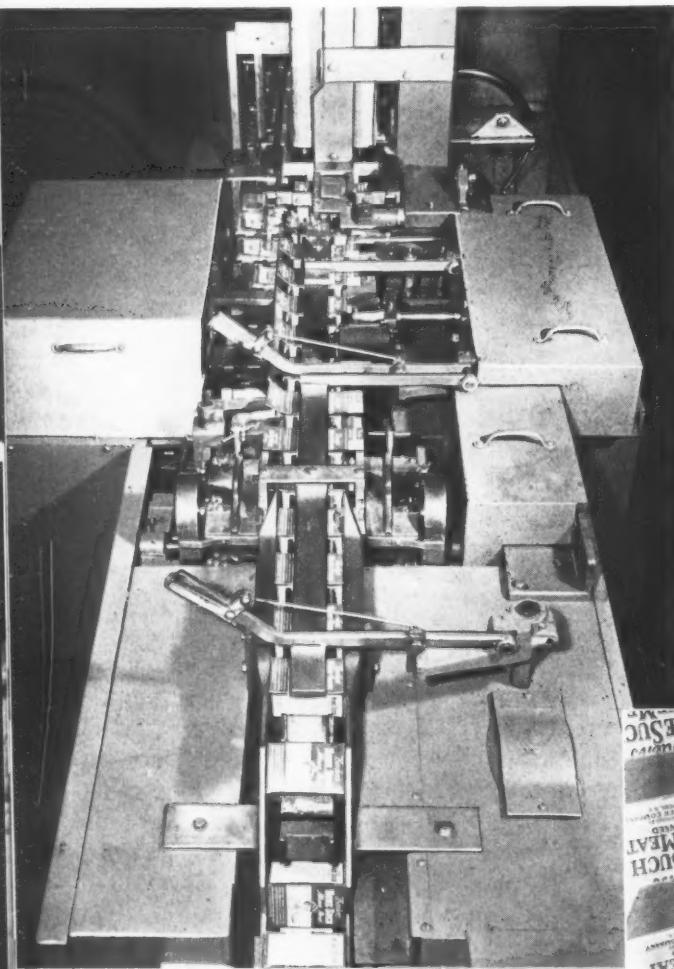
creasers and "fingers" crease the paper lengthwise and fold the ends in and down into a regular square-end fold. The top seam is heat sealed; then the ends.

The output of each wrapping machine is discharged directly onto the two intake belts of the cartoning machine. A transfer mechanism removes the wrapped prints from the intake belts and places them in pockets of the article conveyor of the cartoning machine. A circular containing recipes and instructions for preparing the mince meat and measuring $7\frac{1}{2}$ by $4\frac{1}{2}$ in. is fed from a magazine on the cartoner. It is given one fold lengthwise so that it measures approximately $2\frac{1}{4}$ by $7\frac{1}{2}$ in. The circular is then placed over the leading end of the wrapped print of mince meat.

One of the most troublesome elements in the old pack-



CARTONS FED from magazine are opened and held horizontally as mince meat and leaflet are gently inserted on continuous-motion machinery.



OVER-ALL VIEW of the automatic cartoner, which is of the continuous conveyor type with vari-speed drive. Lot numbers are stamped on inside end flap of carton and the flaps are closed and glue sealed. The finished packages are discharged at end toward the camera.

aging set-up was the equipment which inserted the folded circulars that went into each carton with the mince meat. The old equipment lost about 5% of the leaflet inserts through crumpling or "missing." The new machine has cut this loss to practically nothing.

While the wrapped prints move into position to be inserted in the carton, the cartoning machine starts the formation of the cartons, which have been delivered to the plant flat. As the flat cartons feed from a magazine which operates on the suction principle, guides expand the carton sides into rectangular shape, leaving both ends open. A special feature of the cartoner is an automatic stop that prevents a carton from opening should a wrapped cake of mince meat fail to come into position, thus saving the carton for later use, and—more important—preventing empty packages from getting out to the retail trade.

The wrapped mince meat with the circular on top is inserted and the carton's end flaps creased, folded and sealed with glue. Each carton is code dated on an inside end flap. The completed cartons are carried by conveyor to the casing point.

The old cartoning machine in the packaging line had many cam-operated mechanisms, start-and-stop movements, etc. The new type of cartoner is of the continuous conveyor type with vari-speed drive. Filling of the carton is done with the continuous loading principle that inserts the mince meat into the carton at a fraction of the speed of the machine. The cartoner is built with a solid one-piece cast iron base. The shafts are turned and ground and rotate in self-aligning roller bearings. Suction, obtained by an individual motor-driven pump connected to the cartoner, is used for feeding cartons from the magazine instead of the old style mechanical feed.

According to W. G. Hawley, superintendent of the Syracuse plant, the new packaging line is paying for itself in speed and material saving.

CREDIT: Machinery designed, built and installed by F. B. Redington Co., Chicago, Ill.

CONVEYOR TAKES packages directly to the casing department. Long shelf life is one requirement of mince meat, which has seasonal peaks.



MECHANICAL TAPER

Two dispensers built into table automatically seal boxes pushed

over them, cutting time and labor in half and saving 75% on tape

Two tape-dispensing, box-sealing machines installed in a shipping-room work table have provided a three-way saving in carton-sealing operations for National Auto Fabrics Mfg. Co., Los Angeles, makers of auto seat covers. Sealing time on each carton has been decreased by half. The number of operators needed has been reduced from two to one and the length of pressure-sensitive tape used to seal each box has been cut from 24 in. to 6, using the new arrangement, which was installed with engineering help from the tape supplier.

The two tape-dispensing mechanisms have been built side by side so that the tops of the machines are just flush with the top of the work table. The machines' tape-applying arms have been left exposed so that when a box is placed on the table and pushed against them (see illustration), each arm begins applying a short strip of pressure-sensitive cellulose tape $1\frac{1}{2}$ in. long against the side of the carton. The arms complete the sealing operation by rolling the tape around the corner formed by the side and bottom of the box and then automatically drop back into receiving position.

When the cartons were taped manually, two operators were needed to handle each box. They required twice as much time to tape a box because of the necessity of lifting, turning and twisting each carton in order to seal it in four places. Now one operator does the necessary guiding and turning of the boxes before they contact the tape-applying arms of the machines.

There is no chance for waste of material, since the tape-dispensing machines automatically apply exactly $1\frac{1}{2}$ -in. lengths for each of the four seals ordinarily used. It formerly required 6 in. of tape to do the job at each one of the sealing points on the box when the operators did it by hand.

No electrical power is used by the machines, even for measuring the strips of pressure-sensitive tape. As the sealing arms move during the application of tape on one carton, they activate a mechanism in the machine which automatically indexes another strip for the next application.

The flexibility of the new system, according to Fred L. Ackerman, general manager of National Auto Fabrics, permits seat covers to be packed in undersized boxes when necessary, with full assurance of a tight seal. To do this, a double number of seals is made. The box is simply pushed across the taping arms once, then pulled back, slid sideways a few inches and pushed across the sealing arms again before turning the box to seal the other side. The operator can put a slight pressure on the box top when it is held against the sealing arms to help give a tight seal.

For small boxes which require only a single seal on each side, either one of the taping machines can be used independently of the other, with no adjustment or rearrangement of the machines necessary.

Adjacent to the taping table is a 25-ft. packaging bench on which auto seat covers are folded, the collapsible telescope-type boxes assembled and the covers packed into the boxes, ready for taping.

CREDIT: Cellulose tape and "Type M" tape-dispensing machines. Minnesota Mining & Mfg. Co., St. Paul, Minn.

PUSHING BOX over projecting arms of the dispenser automatically applies $1\frac{1}{2}$ -in. strips of pressure-sensitive tape for sealing. Box is reversed, operation repeated to seal other side.



Gift appeal for



VISIBILITY and smart design are sales assets to a product that cannot be tested prior to purchase. Wall rack adds a great deal to the value and utility of gift. Note the interesting repetitive design of the trade name on the box cover.



HARLEQUIN PATTERN adds gay touch to the reverse-tuck folding cartons for Ekcoline sets. Items in set are identified on side of carton.

IMPRESSIVE in both size and appearance, these paperboard tubes represent something entirely different in packaging for a set of kitchen utensils, complete with its own wall rack.

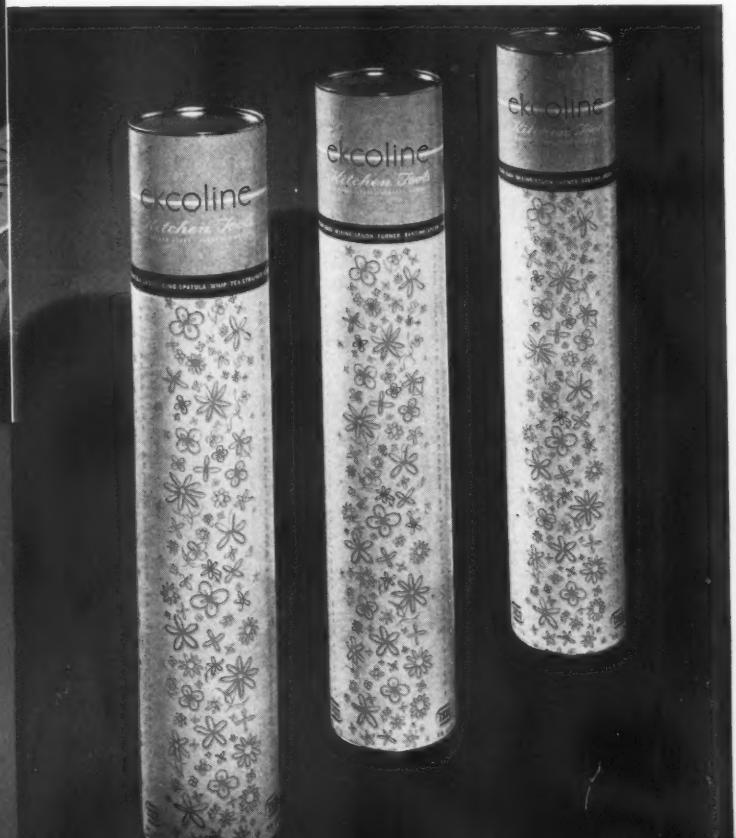
A set of fine kitchen tools for a bride, or for Mother on her birthday? Well, why not?

Ekco Products Co., Chicago, one of the nation's largest manufacturers of this type of product, is basing an important phase of its present repackaging program on the belief that such prosaic items as ladles, spatulas and basting spoons can be upgraded to the "appropriate gift" category by means of intelligent packaging and merchandising. Inherent in this program are several points worthy of study by manufacturers whose selling problem parallels that of Ekco.

Products vary a great deal in the ease or difficulty with which their superiority over competitive goods may be demonstrated. Pens, lipsticks, radios and a host of other items can easily be tested by the prospect at the point of sale and their relative merits promptly evaluated. But kitchen tools cannot really be appreciated until actually placed in service. This being the case, the producer must make every effort to convince the public, through proper merchandising, that his line is the right one to buy. And that's where Ekco's new line of packages, developed by a well known industrial design organization, comes in.

Although most homemakers value the superior performance and durability of good kitchen tools, the merchandising of even the better quality kitchen forks,

PHOTOS COURTESY RAYMOND LOEWY ASSOCIATES.



kitchen tools

Eko Co. lifts its products to a new market level by the adoption of smart packaging and promotion of the set idea.

mixing spoons, pancake turners and similar products often leaves much to be desired. Sold largely through retail hardware outlets and the housewares sections of department stores, these pieces are often sold singly rather than as a family group. In most cases their packaging, if any, has emphasized utility rather than sales-stimulating design. Thus, it is not strange that products of this type have never attained the popularity as gifts that their usefulness warrants.

In working out the new group of Eko packages, the design organization handling this program tried to put itself in the place of the customer who is looking for a suitable gift for a wedding, anniversary, birthday or other special occasion. It was immediately apparent that such a customer might admit the practicality of such gifts as kitchen tools, but still feel they lacked that special "oomph" or glamour that makes a gift a gift. True, they could be purchased in their utilitarian packages and specially gift wrapped, but many outlets selling this type of product have no such facilities. Faced by these difficulties, the prospective buyer was inclined simply to turn to a more "acceptable" type of gift.

The situation presented a clear-cut challenge to the designer. Why not market these tools in packages which were so attractive (as well as functional) that

no one would hesitate to buy them as gifts? By making the packages appeal to feminine tastes and eliminating the need for special gift wrapping, merchandising opportunities would be greatly enhanced. A study of some of the new Eko packages indicates how this line of reasoning was carried into actual execution.

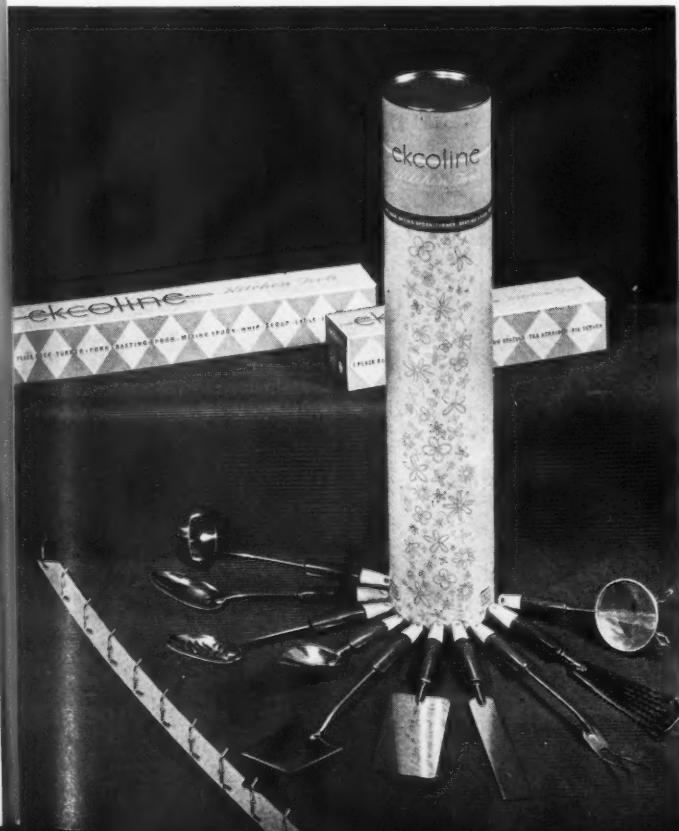
Typical of the "new look" in Eko packages are those used for the company's top-quality Flint line of stainless steel kitchen tools, which carry a 15-year guarantee. The Flint assortments are now offered in two sizes—a seven-piece set with wall rack, turner, fork, spoon, masher, ladle and spatula, and a four-piece "starter" set with rack, masher, turner and spoon. The fact that the stainless steel wall rack has hooks for six tools constitutes an incentive for the recipient to complete the set later.

Both sets are packaged in substantial two-piece folding boxes utilizing a double-wall construction on the body for increased rigidity. Die-cut platforms anchor the tools securely in place. In the larger set, the six tools are in position on the wall rack, with their lower ends inserted in the platform openings. In the four-piece set, all pieces, including the wall rack, also utilize die-cut openings in the inner side wall for additional support.

Colors which complement and enhance the appearance of the stainless steel tools were chosen for the Flint boxes. These include a rich red magenta, gray-blue and white. On the folding cover of the boxes, the name "Flint," accentuated by the arrowhead symbol, appears alternately in red and blue in capital letters of medium weight, amply letterspaced, and the phrase "stainless steel kitchen tools" appears twice in script. The repetitive effect so obtained provides unusual display impact.

End panels carry the Flint name and list the tools included in the sets, also stating that they bear a 15-year guarantee. Guarantee statement, trade name and arrowhead symbol are also printed on the red platform supporting the tools. Printing on one end panel is reversed to read upright when the cover is removed and used as a display base. Company name and Eko trade name are printed unobtrusively on two end panels of the cover.

A geometrical harlequin surface design involving



SHOWING CONTENTS neatly contained within the Ekco Flint tube package. All of these packages are designed to be colorful and attractive enough for gift giving without being wrapped.

triangular and diamond-shaped areas characterizes the tuck-end folding boxes designed for the Ekcoline kitchen tool sets. This popular-priced line is offered in an eight-tool and a six-tool assortment, each containing a wall rack. Whereas handles on the Flint sets come in black plastic only, the Ekcoline tools are available with handles of either red, yellow, green or blue. Since the red is by far the most popular color, a circular red dot containing the word "red" in white letters is imprinted on the end flaps of these boxes and adhesive-backed circular colored labels, similarly imprinted, are placed over the red dot to identify sets whose handles are in other colors.

Printed in pink and deep gray on white, the Ekcoline packages have strong gift appeal. They feature a new "ekcoline" logotype with a line running through it on the two main panels of the boxes. Tools within the folding containers are tissue wrapped. In addition to the listing of tools for each set, end panels also identify the assortments by code number. Prior to adoption of the new design, Ekcoline tools were sold in plainly printed chipboard boxes or in bulk.

Perhaps the most unusual of the new Ekco packages is the sturdy paperboard tube with metal ends and telescoping top used for Ekcoline set No. 1775. This set, consisting of a rack and 10 tissue-wrapped kitchen tools, is packaged with particular reference to its use as a gift item for a bride, but the stylized floral pattern also is in good taste for numerous other gift occasions. Printed in pink and deep gray on white, the tubular package has obvious display and re-use possibilities. The 10-hook wall rack, longest item in the assortment, is packed in its own individual paperboard tube within the parent container to facilitate the packing operation.

A striking departure from conventional packaging

GIFT CARD "for a lovely lady" joins flaps of folding carton that over-packs regular corrugated box for Ekco pressure cooker, adding unusual and gracious touch.



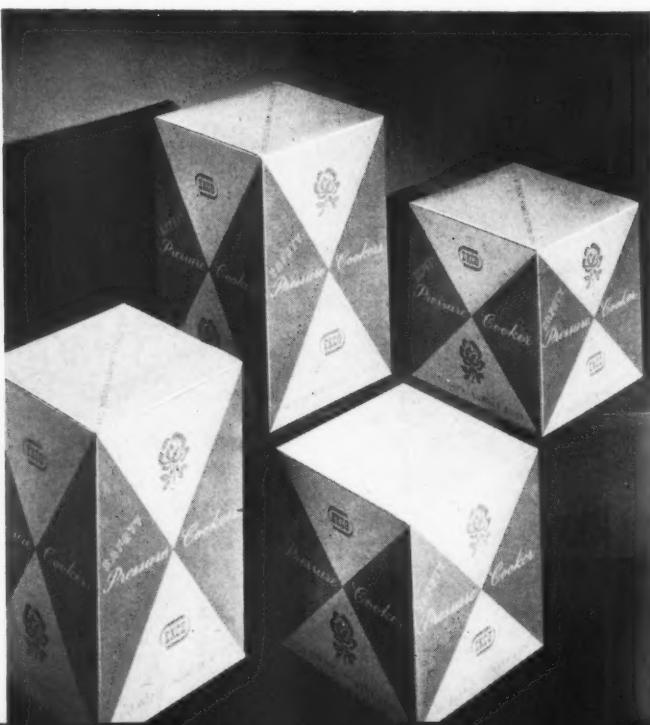
practice on pressure cookers is the special gift package designed for Ekco. Surveys have shown that pressure cookers are usually packed in utilitarian, plainly printed corrugated containers which are completely lacking in gift appeal and must be specially wrapped or overwrapped for gift presentation. In order to eliminate this difficulty, Ekco has adopted attractive folding boxes in two sizes which are placed directly over the regular corrugated shipping containers to transform the cookers into gift items.

Printed in pink and light gray on white board, these gift boxes carry the Ekco trademark, a floral motif and the name "Safety Pressure Cookers" on the four side panels. The larger container holds the combination set No. 6030, including a $4\frac{1}{2}$ -qt. and a $2\frac{1}{2}$ -qt. cooker, complete with table service cover and pressure cover, while the smaller box is for a single $4\frac{1}{2}$ -qt. pressure cooker. These outer boxes are made with a slot in the top which holds a Tiffany gift card addressed "To a Lovely Lady." Three such gift boxes, enclosing the regularly packaged sets, are placed in a master corrugated shipping container.

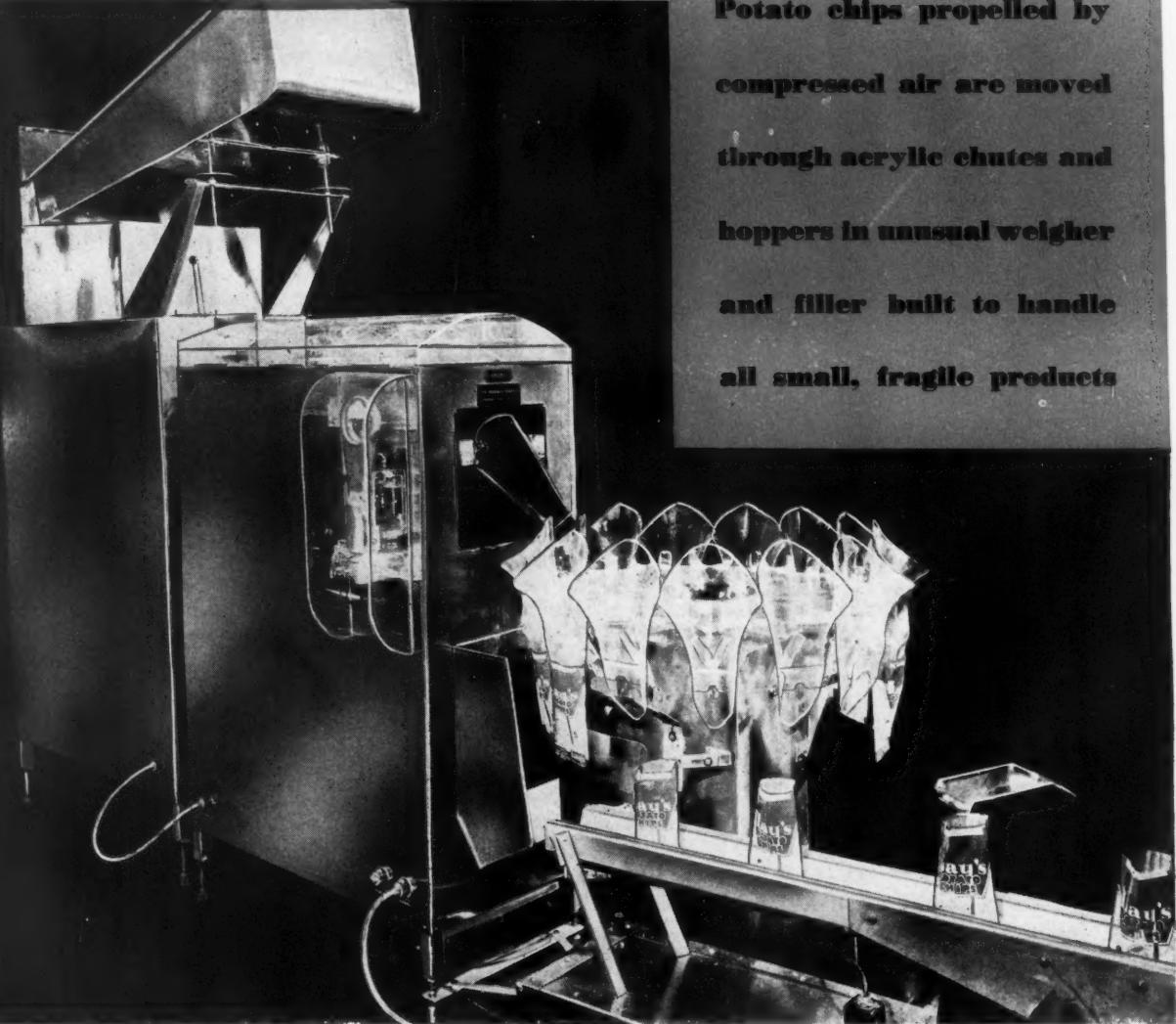
Because of the diversity of products in the Ekco line, one of the principal problems of the present repackaging program is that of integrating the different packages by means of the Ekco name while maintaining the desired individuality of treatment. This family identity will be preserved by including the distinctive Ekco trademark on all packages covered in the redesign program.

CREDITS: Design program, Raymond Loewy Associates, Chicago. Frame-Vue boxes and reverse tuck-end boxes, Container Corp. of America, Chicago. Pressure cooker shipping containers and special gift packages, Ohio Boxboard Co., Rittman, Ohio. Ekcoline tubular containers, Cleveland Container Co., Cleveland, Ohio.

EYE-CATCHING shelf appeal of gift cartons for the two sizes of Ekco pressure cookers is suggested by this photograph. Design and coloring are soft and feminine.



TRANSPARENT MACHINE



Potato chips propelled by compressed air are moved through acrylic chutes and hoppers in unusual weigher and filler built to handle all small, fragile products

I. MACHINE CONSISTS of three units: feeder (rear, with overhead conveyor from cookers), weigher and 15-head rotary bag holder. Filled bags are automatically tripped to take-away belt. Single operator replaces 20 to 30 hand packers.

In a new feeding, weighing and filling machine developed in the South, potato chips and similar fragile products are literally blown on a cushion of air from the hopper through transparent plastic parts and fittings into their bags. It is an outstanding example of the current trend toward the functional use of plastic parts in packaging machinery and the principle of operation is unusual—if not unique—in this field.

This is one of several recent developments with which machine builders are at last beginning to solve the packaging problems of the fast-growing chip industry. These problems include not merely the handling of a light-weight and fragile product at high speed with a minimum of waste and breakage, but also the matter of the action of salt on metal and the danger of rancidity

from cooking oils and crumbs collecting in seams and crevices. There is difficulty in getting exact weights with quantities as small as $\frac{1}{2}$ or 1 oz. with a low-density product. Finally, there is the necessity of reducing hand labor in order to keep the price of such a product low. But until recently it was generally considered impossible to package potato chips mechanically, due to the difficulty of getting them to flow from a mass in the hopper and costly product breakage if mechanical agitation was used.

In the new machine rapid, positive flow is achieved by the force of compressed air alone, with a minimum of breakage, and cleanliness is provided by surrounding the chips, throughout their travel, with smooth, formed acrylic plastic. From the time they leave the stainless



2. HEAD-ON VIEW, with acrylic hood lifted over weighing mechanism. From the time they leave feeder hopper at rear until they are in the bag, chips are propelled by air currents and touch nothing but acrylic. Conical filling snout at front of machine is black acrylic.

steel feeder hopper until they are in the bag, the chips touch nothing but acrylic. And—surprisingly enough—it has been found that the comparatively soft surface of acrylic is not scratched appreciably. Stainless steel—the only alternative material—is expensive to fabricate and acrylic is a less costly material for most parts due to ease of forming in complex curved shapes.

With its rotary, 15-head bag holder for filling, the new machine operates regularly with only one attendant at a speed of 45 to 50 bags a minute and has been run as fast as 80 bags a minute—doing the work of 20 to 30 hand packers, users say, with greater accuracy.

Its acceptance is indicated by the fact that since the first machine was installed a little over a year ago at the potato chip plant of H. W. Lay & Co., Atlanta, a total of 26 has been placed in operation in more than a dozen chip plants in various parts of the country and they are now being turned out by three plants at the rate of eight a month, against a large backlog of orders. The Frito National Co., Dallas, with 36 owned and affiliated plants here and abroad producing the popular "Fritos" corn chips, not only has adopted the machine as standard, but has acquired from the inventor the right to manufacture machines in its own plant in order to speed installations and is currently turning out about one a week.

In a letter to all company-owned and franchise plants last January following a two-week trial of the machine, C. E. Doolin, president of the Frito company, said: "For 15 years we have been seeking a machine that would give us a profitable advantage over our hand-weighing operation. (This machine) has finally been selected as being the *acme* in a weighing device. . . The savings that it made us in one week will add up to \$26,000 a year, in this one installation, provided this sort of production is continued."

Other current users of the machine include Buckeye Foods Co., Columbus, Ohio; Morton Foods, Dallas; Stock's Quality Foods, Reading, Pa.; Mrs. Grubbs Potato Chip Co., Fort Worth; So-Good Potato Chip Co., St. Louis; Mi-T-Fine Foods, Dallas; Hiland Potato Chip Co., Des Moines; Dickey Potato Chip Co., New Orleans, and the Sun-Krisp Potato Chip Co., New Orleans.

Background of development

One of the more remarkable things about the machine is that it was developed and built by a man who had had no previous experience with packaging machinery. An Atlanta industrial engineer named Daniel E. Woodman was engaged several years ago by the Lay company to revamp its potato-chip plant. He was astonished to find the chips being packaged manually, but was told that up to that time no satisfactory machinery to do the job had been developed.

He was intrigued and started work on the problem in a small mechanical research department which he maintained in connection with his engineering business. Within a few weeks he had evolved the main, and revolutionary, principle of using compressed air to move the chips and blow them gently to the scale pan and thence down into the bag. Within six months the weigher was ready for testing; in another six months the feeder had been worked out. The original single-snout operation on the weigher, requiring single-bag handling by the operator, was too slow in proportion to the high speed of the feeder and weigher. Eight months of additional research resulted in the development of the fully automatic rotary filler which provided more net bags packed per minute.

Up to this point Mr. Woodman had not thought of using anything other than conventional metals. But with a complete model built and in the testing stage, he ran into the problem of being unable to observe the movement of the chips in the air currents inside the machine. It was for this reason that he approached Gladwin Plastics, an Atlanta plastics development and engineering firm, with a request for a duplication in transparent plastic of the stainless steel housing then being used over the weighing mechanism.

With this and other transparent parts he was able to solve his engineering problems, although he still assumed that it would be necessary to revert to stainless steel for his production models. It was felt that only a very hard material would resist the abrasion and corrosion caused by salt and oil on the chips passing rapidly

through the machine. However, Gladwin Plastics' engineer Richard Linneman advanced the theory that the softer, more resilient surface of acrylic would resist this type of abrasion actually better than a glass-hard surface. Lengthy trials with the pilot machine convinced Mr. Woodman that Mr. Linneman was right. The acrylic parts made for the first machine have been in use on that machine at the Lay company for over a year and are reported to show only a slight surface dullness—not enough to permit oil and foreign matter to become embedded in the surface.

As the work with plastics went on, further advantages were discovered. In some parts, such as the bag holder on the rotary wheel (see Fig. 4), the shape required was such that sheet metal would have had to be formed progressively in expensive dies, while it was possible to form acrylic with changing radii and irregular curves on very inexpensive forms. This was particularly important during the development period, when 12 to 15 different-shaped members often were tried for certain parts before the final design was established.

Another advantage over the use of sheet metal—perhaps the most important—was in the matter of seams and joints. Folded joints would be a receptacle for deposits of oils, difficult to cleanse. With the readily formed sheet acrylic, such joints could be completely eliminated.

Wherever possible, all parts are formed of integral acrylic sheets, cut to a pattern. This led to the creation of forming shapes that also acted as assembly fixtures. In some cases the heated part is placed on the form and other parts are attached to it before it is removed. This technique is particularly advantageous for irregular parts where rather close dimensions must be maintained for the unit assembly.

The plastic parts through which the chips pass are cleaned each day merely by wiping with a wetting-agent solution in water, then rubbing clean with a dry cloth, and they are designed for easy removal for this purpose. Parts can be removed by hand, without the use of tools.

How it works

The role that plastics plays can best be understood by a description of the operation in detail, with reference to the accompanying illustrations.

The machine (which aside from the acrylic parts is made almost entirely of stainless steel) actually consists of three units: the feeder, the weigher and the rotary bag-holder conveyor.

Chips are fed from the stainless steel supply hopper atop the feeder, which is the rear section of the machine as shown in Fig. 1. Chips are brought to this hopper from the cooker by continuous type conveyors (shown overhead in the illustration), or they may simply be dumped in from batch cans.

With the chips piled up in a mass in the hopper, the feeder comes into play with three simple mechanical motions working in harmony, gently separating chips from the mass and carrying them down the acrylic chute (shown in Figs. 2 and 3) in a steady stream to

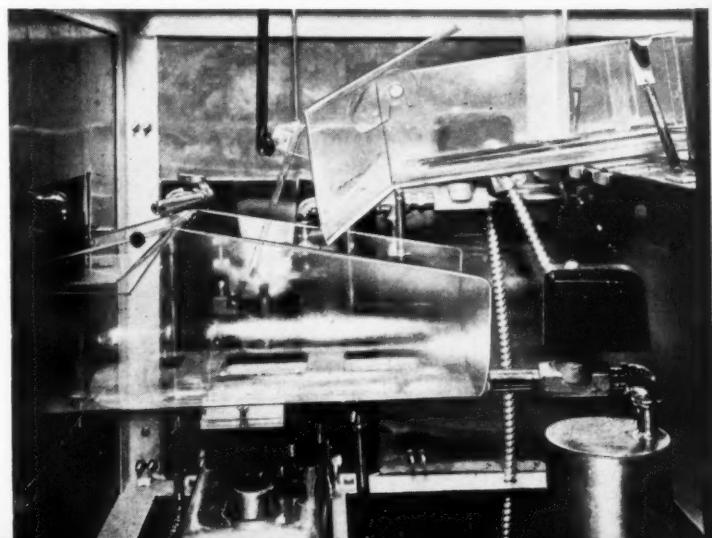
the scale hopper. The rate of feeding of the chips can be closely controlled; it actually determines the number of bags per minute that will be filled and discharged from the other end of the machine.

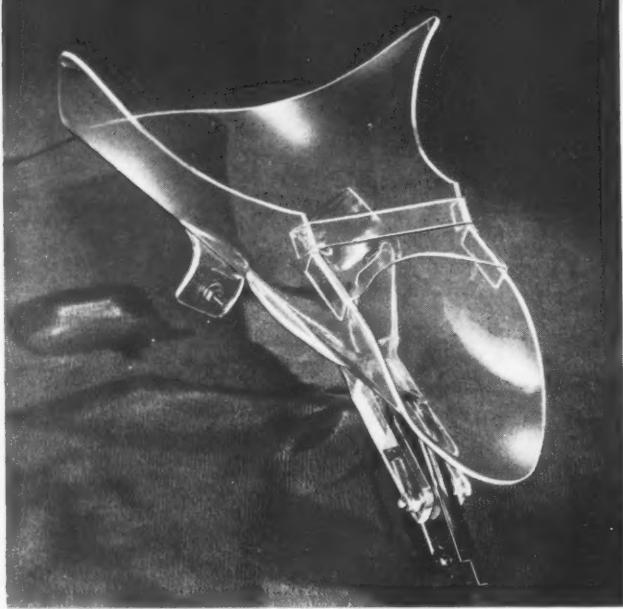
The weighing operation can be understood by referring to Fig. 3, which is a view down inside the weigher, the central section of the machine, underneath the domed acrylic hood. The chips move from the feeder down the shaker hopper of acrylic (shown in the upper right of the photo). This shaker trough, which has three longitudinal baffle strips formed in the bottom to help control the flow, oscillates at a rate up to 750 times a minute. At the end of the shaker hopper are an adjustable chute and a swinging gate, both of which are made of acrylic.

The chips sift into the acrylic scale hopper and when the beam is tipped at the required weight it automatically releases an air blast which momentarily closes the gate of the filling chute above while another blast of air, coming from the nozzle at right center in Fig. 3, sweeps the chips off the scale hopper and out through the black snout on the front of the machine into a bag positioned by the rotary bag holder. It is not necessary to tip the scale hopper to evacuate it, so there is no waiting for the hopper to return to position. Furthermore, the scale beam itself is boosted instantly back to zero reading by means of a blast of air directed against an acrylic vane attached to the scale weight pan. The machine is so fast and continuous in its action that it could not depend upon the normal power of gravity, with a momentary pause for the overcoming of inertia, to return the weight beam prior to receiving the next charge of chips. Mr. Woodman believes that this is the first time that scale-beam inertia, a problem in this type of machine, has been overcome in this simple manner.

Actually, the blasts of air are so controlled and synchronized that the chips are first suspended in air and

3. VIEW INSIDE weighing unit shows oscillating chute, with air-controlled gate, which feeds into scale hopper. When weight is reached in scale hopper, blast of air from blower in rear lifts chips and carries them out into bag. Another air blast instantly returns scale beam to zero. The normal speed is 45 bags per minute.





4. CLOSE-UP of individual bag holder shows curved shape, readily formed with sheet acrylic, and spring clip which holds bag in place until it is automatically released. The only hand operation necessary is loading bags on holders.

then, very gently and easily, blown down into the bag.

The black conical snout through which the chips flow into the bags is also acrylic—made of black material for purely psychological reasons. It was originally transparent but, according to Mr. Woodman, chip manufacturers just couldn't believe that their chips were not being broken up when they saw how fast they poured through the snout. When he made the snout opaque, all questions ceased.

As may be seen in the close-up in Fig. 2, the rotary bag holder-conveyor is made entirely of acrylic. The wheel, of substantial rib construction, is synchronized with the operation of the feeder and weigher so that each bag passes under the filling snout at the right instant to receive its charge of chips. This is an intermittent action, the wheel stopping for a split second at each of the 15 positions.

Detail of an individual bag-holder head may be seen in Fig. 4. As the wheel revolves, an operator slips a bag on each of the heads; the shape of the head—like a scoop—holds the bag open and a spring clamp on the back holds it up. This holding clamp is ingeniously designed so that as the wheel revolves away from the filler an automatic trip releases the clamp and the filled bag drops gently on the conveyor belt that takes it away for sealing. The bag holders are made in eight different sizes and shapes to accommodate the various sized bags and weights used in different parts of the country and are of course interchangeable.

Other acrylic parts (not all shown in the illustrations) include the domed hood or cover over the weighing machine; the scale "blister" on the left side at front of the machine; the scale housing cover which streamlines and protects the base of the scale beneath the hopper; the scale weight pan and a spill chute inside the feeder which serves the important function of catching

crumbs and siftings as the chips move through the feeder, dropping them down into a service drawer where they may easily be removed. The latter device improves the appearance of the packaged chips by eliminating the crumbs and burned particles which usually find their way into the bag.

In every case, according to the engineers, acrylic was used for these parts either (1) because it was cheaper than alternative materials or (2) because transparency served a valuable function. Users have not overlooked the fact that the shining transparency of the plastic and the cleanliness of the operation makes the machine a showpiece in the plant.

Although primarily designed for the potato-chip and corn-chip industries, the machine has obvious applications for other products such as shoestring potatoes, cookies, pretzels and pretzel sticks, cheese tidbits, popcorn, cheese corn, elbow and shell macaroni, peanuts in the shell, cut pork skins—any product that is small and light enough to be handled by the air-blast principle.

Overpowered more than two to one, the machine at 50 bags per minute has speed to spare, although customers are requested not to operate their machines in excess of 55 bags per minute without written permission. The manufacturer guarantees speeds and weight tolerances in writing, promising weight tolerance not to exceed $\frac{1}{16}$ oz. average, although he says that actual experience has shown an average variance closer to $\frac{1}{32}$ oz.

Auxiliary equipment now under development will include an automatic vibrating bag conveyor which will shake chips down into the bags as they move away from the filler, leaving the top free for engagement with an automatic device which will take it through a heat sealer and discharge completely sealed bags ready for packing in shipping cartons. This will provide one-man operation all the way from the cooking process right to the shipping room—the single operator being required merely to slip empty bags on the rotary filling heads and tend the switch panel of the machine. At present it takes one operator to man the machine; one or two operators to fold and staple or heat seal filled bags and one to pack the bags into cartons.

Other food-packaging machines using acrylic parts already are on the drawing boards. The developers feel that the advantages of the plastic have been so conclusively demonstrated in the chip machine that a wide new field of functional use in food-packaging and handling machinery has been opened up.

Performance data

Mr. Doolin's adoption of the machine for the 36 Fritos corn-chip plants was based on brief but intensive tests. With the letter which he sent to all plants urging immediate installation of the machines, he enclosed a table showing savings demonstrated in the two-week test in his Dallas plant. The first week the machine was operated two shifts a day; the second week, around the clock.

Mr. Doolin was particularly pleased with the simplicity of operation, requiring little or no time to train

new operators. Within an hour after the machine was placed in operation, he says, the girl feeding bags to the filling wheel was averaging 35 to 38 bags per minute and the machine was immediately speeded up to 45 bags per minute, which speed she also handled with very few misses. Another new and uninstructed operator was handling the normal speed of 40 bags within an hour's time.

At regular intervals throughout the two-week test, bags were check-weighed and a graph kept. At no time, says Mr. Doolin, did the bags vary as greatly in weight as they did in the hand operation.

A direct comparison with hand weighing was kept. By the end of the second week the machine was handling 3,330 lbs. of chips in one day, requiring 96 employee-hours, as against (*Continued on page 204*)

PLASTIC MACHINE PARTS CUT BOTTLE BREAKAGE

Experience of the Glacier Springs Bottling Co., Cincinnati, indicates that the adoption of a laminated plastic material in place of cast iron for rotary conveyor parts in crowners, labelers, washers and filling machines can reduce bottle breakage 40% and increase bottling speed as much as 30%.

A typical application is shown in the accompanying illustration. The rotary star wheel which takes the bottles off one conveyor, under the capper and off on another conveyor was previously made of conventional cast iron. Contact of the glass against the spokes of the wheel caused extensive bottle breakage, leading not only to the loss of the glass and the product, but to production stoppage as well.

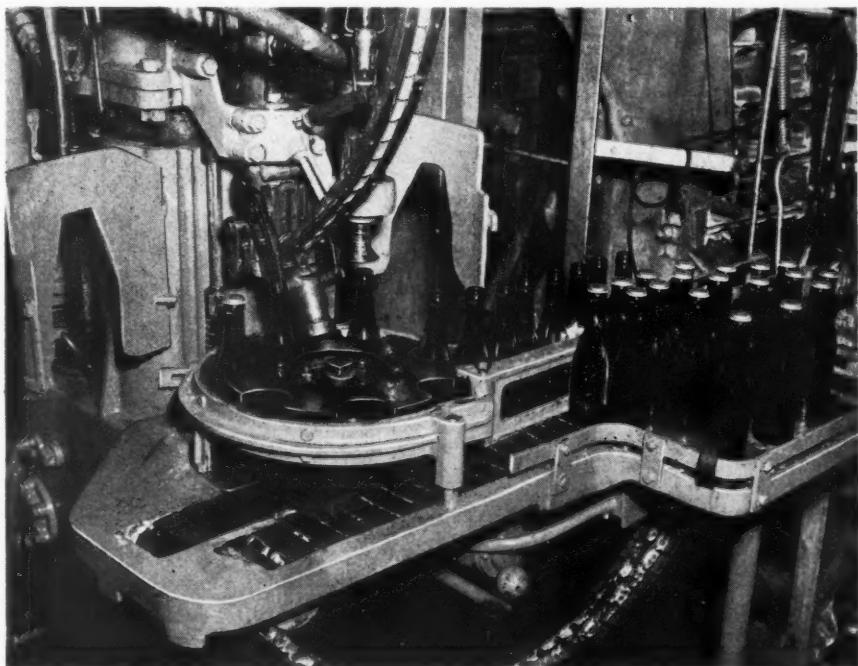
T. J. Burke of the company's production staff evolved the idea of using a star wheel made of a familiar type of laminated plastic which, although in many respects stronger than iron, had a greater resiliency.

The wheel illustrated has been in use at the Glacier Springs plant for nearly four years and it is estimated that it has handled more than 5,000,000 bottles. According to Mr. Burke, the plastic part shows absolutely no signs of wear or deterioration despite the fact that the speed of the machine has been increased by 30%. The resistance of the wheel to cracking or straining under repeated sharp blows is considered all the more remarkable in that its face is drilled with five holes for the bolts which hold it in place.

Since 1944, the plastic material has been adopted for many similar parts in various machines at Glacier Springs. The supplier is now directing the laminated material toward replacement service for bottlers generally, as well as recommending it for inclusion in bottling machinery as original equipment.

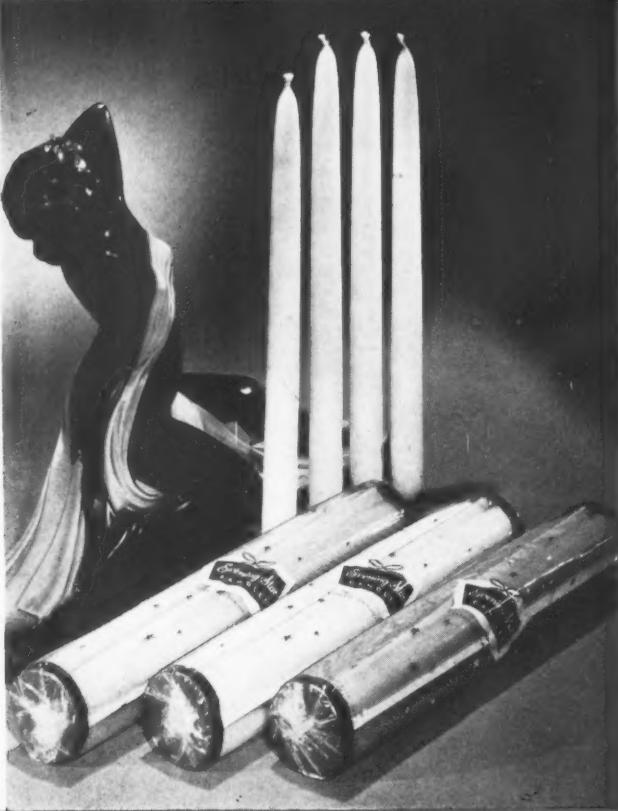
According to Mr. Burke, Glacier Springs officials feel definitely that the use of the laminated plastic parts has reduced bottle breakage by 40% and has cut the volume of noise at least in half. Figures support a 30% over-all increase in speed of the bottling operation, with operating economies resulting not only from this increased speed and volume, but also from the great reduction of breakage and production stoppages. Under no conditions, the company's tests indicate, can the same bottling machinery develop as high a speed with the former cast-iron parts.

CREDIT: *Laminated plastic parts, Formica Insulation Co., Cincinnati.*





DESIGN



CANDLES IN UNIT PACK

To show off its fade-proof "Evening Star" candles and stimulate impulse buying, particularly in supermarkets and self-service stores, Victorylite Candle Co., Oshkosh, Wis., has introduced a set of four tapers in a unit package with a printed cellophane overwrap. The basic package consists of a four-way paperboard divider, capped at both ends. Each candle rests in the right angle formed by the crossing sections of the divider, protecting it from breakage during shipment.

The trade name is printed in reverse on the cellophane in a dark patch shaped like a small sign. Tiny printed stars scattered in an all-over design pick up the motif suggested by the name.

By packaging the candles in sets, labor and cost of wrapping each candle individually is avoided and at the same time the customer is assured of getting perfectly matched tapers.

CREDIT: Package, Milprint, Inc., Milwaukee, Wis.

SIXFOLD SALES INCREASE

Nufit Sales Co. of Los Angeles reports that sales of its Nufit Dental Plate Reline have increased sixfold since the introduction of its redesigned package. A comparison of old and new packages reveals the increased eye and shelf appeal attained through a clean-cut, bold and readable package face even for a specialty item such as this.

The idea of restyling the package, according to Nufit, was instigated by redesign articles and illustrations of old and new packages which have appeared in MODERN PACKAGING. Following ideas in these articles, the company itself did the redesign job.

A check of drug stores showed that clerks had difficulty locating the old package because the product name did not stand out on shelves. Now it is revealed in bold relief in black type within a white oval on the yellow carton.

CREDIT: Carlon, F. N. Burl Co., Inc., Buffalo, N. Y.



HISTORIES

NEW SHAPE FOR FLOUR

One of the most noteworthy redesigns in the package modernization program undertaken by the H. D. Lee Co. of Kansas City, Mo., for its complete line of grocery items is the restyled carton for pancake and buckwheat flour, new in both shape and surface design.

The old square-type cartons looked small, since much of the size was lost when they were stacked on store shelves. The new package is made with a much wider and slightly higher front panel, while side panels are narrower for better display in self-service supermarkets.

Surface design has been enhanced by a four-color reproduction of a mouthwatering plate of steaming golden brown pancakes dripping with butter and syrup. Background coloring was changed from yellow to white. Trademark and horizontal panel are retained for recognition value.

CREDIT: Cartons, Sutherland Paper Co., Kalamazoo, Mich.



SHELL-SHAPED BOTTLES

Mary Dunhill's new private-mold cologne bottles carry out the theme of the shell-designed packages introduced in 1943 (see MODERN PACKAGING, Nov., 1943, p. 78) for other Dunhill products. Extension of this shell theme to bottled products had to await the lifting of wartime restrictions prohibiting private molds. Now that the glass-restricting order has been rescinded these graceful bottles, topped with metal covered urea caps, are making their appearance.

The bottle is designed to give the high quality appearance of hand-made glass to these automatic machine-made bottles by the use of graceful flutings and radiating lines that reveal all of the highlights.

The label is placed on the squared base where it does not interfere with the bottle design.

CREDITS: Design, George Sakier, New York. Bottle, T. C. Wheaton Co., New York.



VARIETY of design and product use are shown by (left) a frosted cologne bottle with two-color design; (center) fused design on a bottle of wallpaper remover marking units of product to be used; (right) a stock bottle for toiletry product given distinctiveness by colorful permanent design. PHOTO COURTESY W. BRAUN CO.



PERMANENT applied color labels, screened on with "inks" that are 90% glass, are particularly advantageous for re-use bottles. Expansion into beer field is a recent development. PHOTO COURTESY OWENS-ILLINOIS.



SLOW-USE PRODUCTS like syrup and salad oil are finding many advantages in labels that cannot be lost. PHOTO COURTESY OWENS-ILLINOIS.

DESIGN RANGE is indicated by poster treatment on front of cosmetic jar and fine-line type on direction panel, both produced by screen-ceramic method. PHOTO COURTESY W. BRAUN CO.



CERAMIC COLOR LABELING

FINE PRINT can now be applied legibly due to improved screening process. This private-mold Trushay bottle is printed in brown to match plastic cap. PHOTO COURTESY OWENS-ILLINOIS.



The ancient art of ceramic decoration, adapted for commercial mass production, is finding a steadily more important use in modern packaging. The Egyptians practiced this art 30 centuries ago; the Venetians knew it in Renaissance days—but it is only during the last two decades that commercial developments have taken place which makes the decorated glass container a practical possibility for many glass packers.

Today, almost any retail store contains many examples of glass containers with applied color, for these packages are being used for products as diverse as foods, toiletries, drugs, pharmaceuticals, soft drinks, beer and lubricating oils. The advantages of applied color labeling (as the commercial process is generally known) are many, chief among which is long life—particularly useful in the case of re-use bottles for such products as milk and soft drinks. Fused-in labels in applied ceramic color are actually a part of the glass and are themselves

It should be noted also that there is increasing use of "ACL" (applied color labeling) on non-return containers, where some but not all of the above advantages apply. One of the earliest of the non-beverage bottles to use ACL was the famous turpentine package of Turpentine & Rosin Factors, Inc., which won an All-America award in 1942. Now the same type of applied labeling—often multi-color—is being found on bottles for products like hand lotion, salad oil, syrup and cosmetics. Wherever the glass container has a long life in the home, during gradual consumption of the product—or where a paper label might become detached and lost due to heat and humidity in bathroom or kitchen—the permanent ceramic label has its advantages.

In the multi-trip, re-use container field, the most important new trend for ACL is to beer, as well as carbonated beverage bottles, where the process was established before the war. A half-dozen beer brands that have re-

**The label that is a fused-in part
of the bottle finds steadily wider
use as process is improved and the
facilities expanded. A history of
labeling on glass and a review of
current industry methods**

made principally of glass. They resist the action of refrigeration; the colors don't run or fade and their use effects savings in operational costs.

Advantages

Elaborating on the last point, here are a few of the ways in which savings with re-use bottles are possible:

1. Ceramic labeling (performed by the supplier) eliminates the labeling machine in the packager's plant; saves cost of constantly replacing labels, glue, machine operation and labor, besides freeing space in crowded bottling rooms.

2. It reduces soaker and washer costs; shortens washer time.

3. It reduces bottle-handling operations.

4. It increases convenience element in retail and consumer handling because of permanency of labels.



AMONG THE FIRST to adopt decorated bottles was the carbonated beverage industry. This group gives an idea of the range of design possibilities. Elimination of labeling operation and reductions in soaker and washer costs are important factors to consider in such re-use bottles. PHOTO COURTESY OWENS-ILLINOIS.

cently adopted ACL for at least a portion of their production are shown in the accompanying illustrations. While this appears contrary to the simultaneous promotion of the light-weight, single-trip, paper-labeled beer bottle, glass makers feel that the permanent ACL label is ideal for beer bottles distributed to restaurants and taverns, where return and re-use is still practiced, and that the "one-way" bottle has its field in direct consumer take-home sales, where return is an inconvenience.

The process is used quite generally throughout the



PHOTOS COURTESY OWENS-ILLINOIS.

FIRST STEP in production of ACL label is preparation of art work. Designs are drawn twice size.

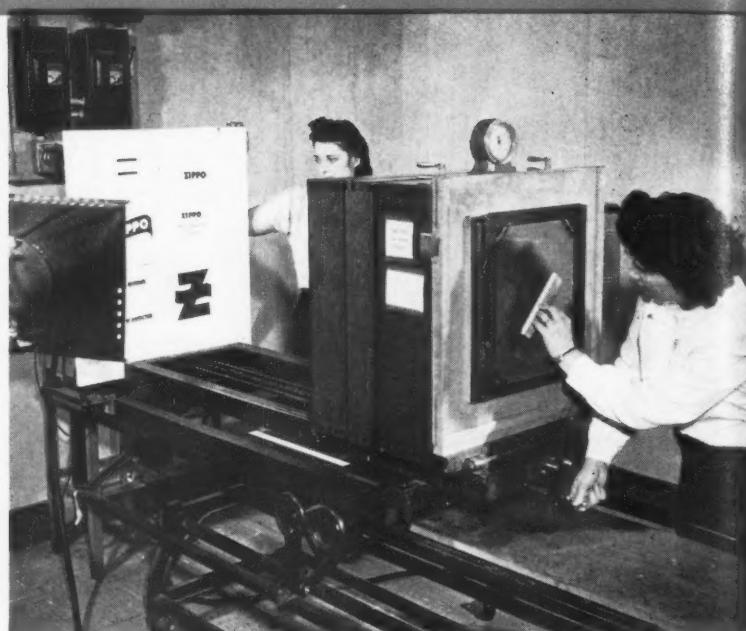
glass-container industry, with variations by individual companies, based on their own specialized experience and methods.

History of the development

Typical of the pioneering research done in this country was the development work of the Owens-Illinois Glass Co.

The first complete installation was started at the company's Huntington, W. Va., plant in the early 30s on a more or less experimental basis. This was strictly a hand operation and necessarily somewhat crude in its beginnings. The lettering or design was actually hand cut from special paper with the gelatin backing that was ironed onto the silk screen. The application was in one color on one panel and the operator simply pulled the screen across the bottles by hand. There was merely a jig fixture which held the bottle and a hand-operated "squeegee" which pressed the ceramic composition through the screen and onto the bottles. At that time Huntington had one small 3-ft. lehr used in "firing" or fusing the color to the bottles. From the original crude one-color application, the process has developed into three-color applications in numerous glass plants throughout the country. Later, an improved but still hand-operated machine was developed and installed at the Huntington plant. In 1934, an operation to decorate milk bottles was started in another of the company's plants at Columbus, Ohio.

By 1935 the photographic method for making screens was introduced and gradually replaced the older method of cutting screens by hand. In the meantime, decora-



PROCESS CAMERA copies the original art work and reduces the design to the actual size needed for application to bottle.

tions for milk bottles gained steadily in popularity, so that by 1938 nearly one-third of all the milk bottles produced by this company were in this category.

Early in 1937 Owens-Illinois for the first time decorated beverage ware at its Huntington plant. The potentialities of this new development soon became apparent and one result was to centralize all design operations in a design-development division set up in Toledo.

The year 1937 also marked the development and installation of duplex, or combination body and shoulder, application machines at the Fairmont, W. Va., plant. By 1938 there appeared a completely automatic decorating machine that would put two colors on both the body and shoulder in one operation.

Ball Bros. Co. recently announced a tripling of its facilities for applied color labeling. During the war-shortage period, when some of the glass companies were unable to take care of the demand that had developed, a method which was designated as "cold color" came into use.

This process uses the screen method, but the baking ovens attain temperatures of only 300 to 350 deg. F. This is sufficient for temporary marking purposes, but the ware will not withstand what is known as the "scratch test." This method is less expensive, because it eliminates the costly baking-oven equipment, and some requirements are adequately met, but the results are not permanent.

The introduction of square milk bottles in 1945 necessitated some new developments and modifications in the type of decorating machine used to handle this

printing process



OPAQUING of positives before transferring design to screen requires high accuracy. PHOTO COURTESY OWENS-ILLINOIS.



PRINTING of design on bottle is a semi-automatic operation. PHOTO COURTESY BALL BROS. CO.

ware. The modifications were accomplished and permitted the streamlined square bottle to be produced with all the added advantages of ceramic decoration.

Steps in the process

In the process generally, three steps are involved: (1) making the design; (2) transferring or printing the design on the container; (3) the baking or fusion operation.

In preparing the art work, a separate drawing is necessary for each color in each front and back body or

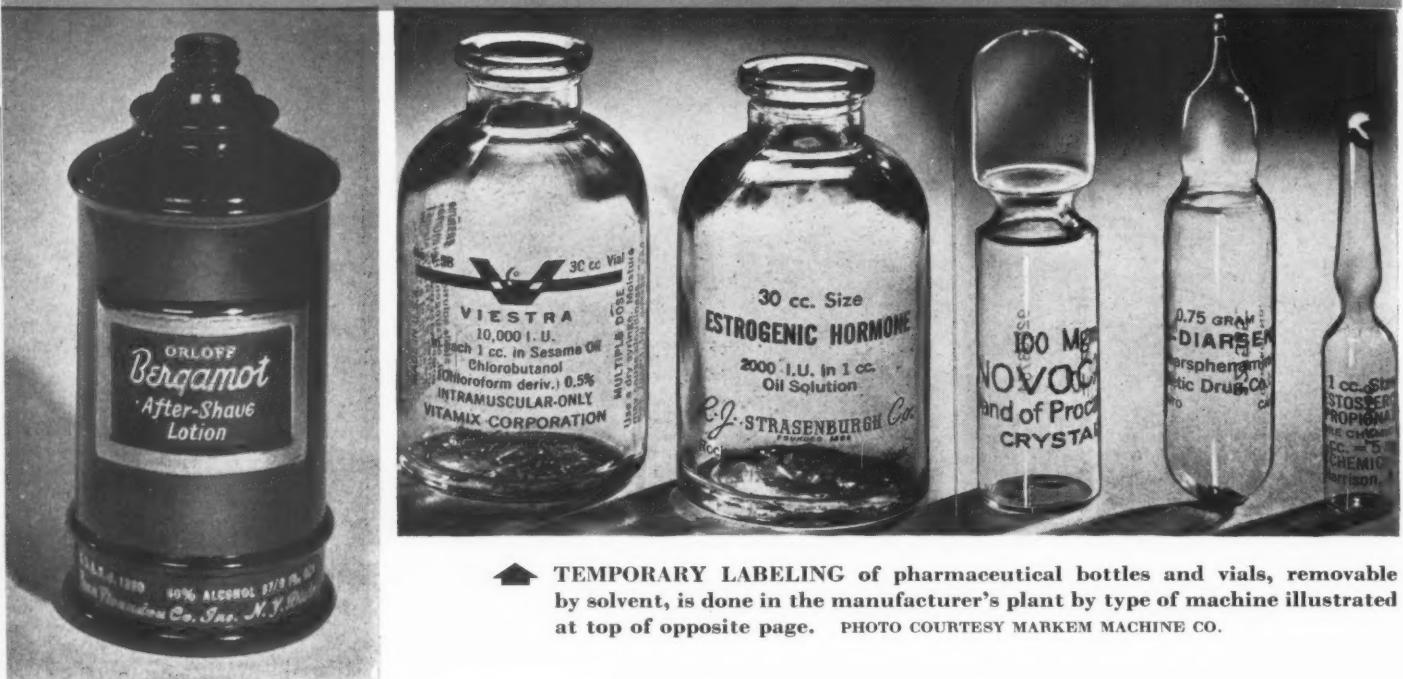


INSPECTION before final fusing at 1,100 deg. Preliminary trips through lehr at lower temperatures dry each color. PHOTO COURTESY OWENS-ILLINOIS.



FINISHED JARS await final firing in lehr after having received silk-screen imprints in automatic machines. PHOTO COURTESY CREATIVE PRINTMAKERS, INC.

Other types of direct-color labeling



▲ TEMPORARY LABELING of pharmaceutical bottles and vials, removable by solvent, is done in the manufacturer's plant by type of machine illustrated at top of opposite page. PHOTO COURTESY MARKEM MACHINE CO.

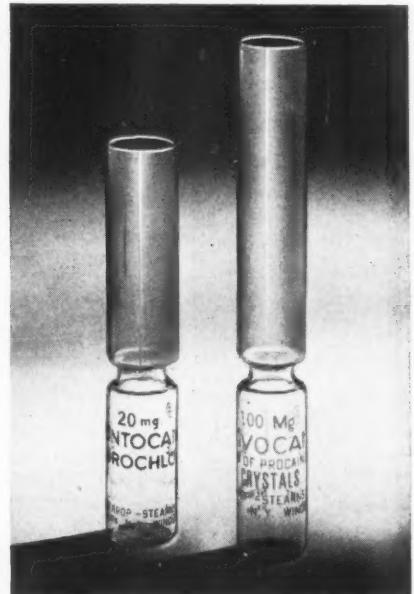
► MEN'S TOILETRY bottle was given a permanent deep purple-black spray coating and high-fired at 1,220 deg. Then gold design was applied by offset and fired at 850 deg. PHOTO COURTESY HEIDT GLASS CO.



ANTIQUE EFFECT for men's toiletries is achieved in packager's plant by special machine. PHOTO COURTESY T. C. WHEATON CO.



SLIP-OFF DESIGN, like a decal, is fused in bottle. PHOTO COURTESY HEIDT GLASS CO.



COMPARISON of screen process (left) and dusting (right). PHOTO COURTESY HEIDT GLASS CO.

shoulder design. Designs are drawn at least twice size, with a view to producing them faster and easier, as well as reducing imperfections. Positives are made by photographing the art work, reducing the drawing to the actual size wanted. These positives are on clear film rather than on glossy paper, since they are used in making the screens. The positives are mounted on tracing paper and exposed on sensitized black-and-white paper. Prints are sent to customers for approval and filed for record purposes.

The screen method is the most widely used for imparting a design to a container. Most of the glass companies use this basic method under various names. The screen method is not new in the graphic arts. The printing trades have utilized screen printing for many years and a similar method is often employed in creating lettering and design on the felt pennants which one sees on sale at college football games. Screens are made from special Swiss silk or fine wire-mesh screen mounted on a frame. Some companies prefer the metal screen

because of its greater strength and durability. The silk screen, though shorter lived, is less expensive and has the advantage of adapting itself more readily to surface irregularities of the glass, whereas a metal screen, if dented, does not return to its original condition. One manufacturer points out that, according to his experience, a metal screen is used in cases where the design does not require fine detail, because it gives a thicker deposit of color.

The screen, whether of silk or metal, is attached tautly to a frame of wood or steel, which becomes an integral part of the screen throughout its use. The longevity of a screen varies according to the type of bottle, size of design, condition of decorating machine and other factors. A separate screen is required, of course, for each color in design. Before metal screens are used, they are conditioned to receive chemical solutions and are then impregnated with a gelatin solution which serves to close up the mesh in the screen. The mesh, of course, is exceedingly fine, around 165 to the square inch being used for most commercial work.

In transferring the design to the screen, the positive is first positioned properly on the screen and then exposed to an arc light. The intense light "bakes" the gelatin that is not covered by lettering and design in the positive.

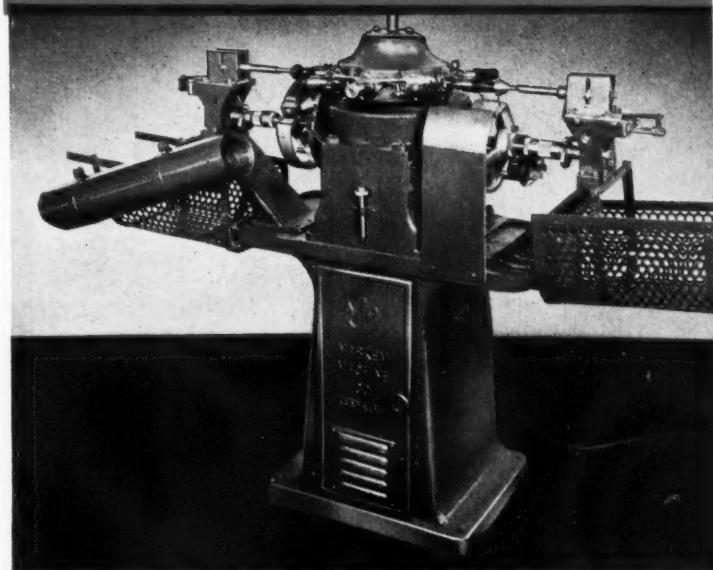
The screen is then immersed in a solution which washes out the "unbaked" gelatin from the mesh, leaving the lettering and design "open" so the color can go through.

The color is actually a sort of paste from a glass "frit," a lead borosilicate glass which melts at a somewhat lower temperature than the flint, amber or green glass used for bottles. The different colors contain various oxides, salts and other mineral pigments. In the preparation of the color substances, they are ground very fine in paint mills until they form pastes of a consistency which enables them to be forced through the apertures in the screen.

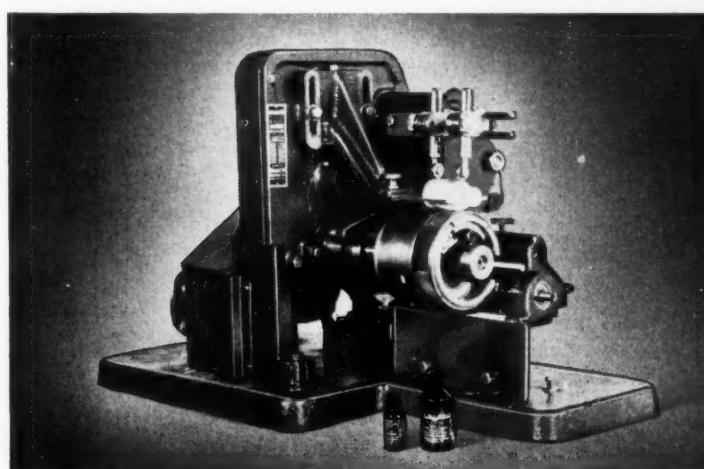
The ceramic material, which is about 90% glass, is held in colloidal suspension by a special oil vehicle termed "squeegee" oil. The material weighs approximately 20 lbs. per gal. and is quite viscous at room temperatures. At temperatures of 500 to 600 deg. F., it sets rapidly and becomes dry to the touch. At temperatures in the vicinity of 1,100 to 1,200 deg., it is converted to the liquidous state and upon cooling thereafter becomes a non-crystalline solid of high glossy appearance identical with that of glass.

Actually, it could be termed a form of glass of low melting temperature. This property of low melting temperature is imparted to the ceramic material principally by its lead-oxide contents. It has the further property of being identical with soda-lime container glass in co-efficient of thermal expansion. This is the most important feature of the ceramic material, because the application process makes it a part of the glass container and, hence, it must be comparable with its parent carrier in so far as physical properties are concerned. It has a distinct advantage over most other

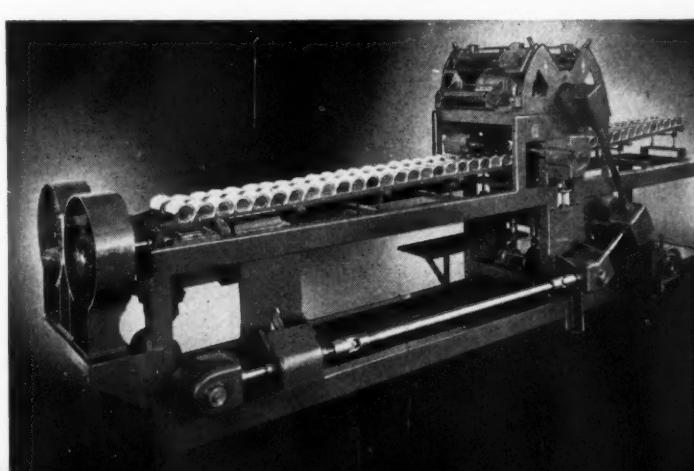
In-plant machines



LARGE MACHINE for two-color printing of a temporary nature, usually used in packer's plant. PHOTO COURTESY MARKEM MACHINE CO.



SMALL MACHINE for in-plant non-permanent marking in one color, used for pharmaceuticals. PHOTO COURTESY MARKEM MACHINE CO.



SEMI-PERMANENT direct labeling of glass or metal is achieved with this machine. PHOTO COURTESY PAPERLESS LABELERS, INC.

packaging identification materials in that it is practically as resistant to physical abrasion and chemical action as is the container itself.

The second step—transferring or printing the design on the container—is relatively simple. As a bottle rotates in the machine, the screen moves across the bottle and a rubber squeegee presses the paste through the open mesh. In cases where designs call for more than one color, it is necessary to put the container through a small gas-fired dryer after each color application in order to dry the color sufficiently to permit the next application. The temperature in this small dryer may range from 200 to 300 deg. F., depending upon the size and shape of the ware being decorated.

As the ware reaches the end of the decorating line, a final inspection takes place before the bottles enter the lehr for final high-temperature firing, which is the third step in the process. In this lehr, the temperature gradually builds up to the required fusing heat, which varies from 1,150 to 1,400 deg. F., depending upon the size and type of glassware. The fusing state is reached when the containers are about two-fifths of the way through the lehr and is held for 15 min., after which the temperature is gradually reduced. When the bottles emerge from the delivery end of the lehr after the 2-hr. trip required, the containers are at a little more than room temperature. The heat of the lehr fires the applied color so that the design actually becomes a part of the glass container, without affecting the container itself.

Other methods

Although the screen method has come to be the most widely used process, there are several other methods of applying designs to glassware, each of which has its champions. One of these is called the *offset method* and

is really a printing method by which a roller applies the color or paste to a rubber plate which, in turn, applies it to the glass container. As many as four colors may be laid down from as many plates and then transferred to the container. Its advocates make claims for this method that include high-speed production, extreme accuracy of registration and ability to reproduce small type matter and fine-line detail very faithfully.

The *slip-off transfer method* resembles the standard decalcomania in its application. The design is printed on a transfer slip by the screen method. A coating of varnish is applied to the bottle and the transfer is positioned by hand. The paper vehicle for the design is then removed in water and the container is subjected to a light firing (600 deg. F.) to remove oils and surplus varnish. This is followed by the high-firing operation (1,150 deg. F.) which fuses the design onto the bottle in the same manner as previously described. This method is sometimes used on square bottles or bottles of irregular shape.

Sometimes an *over-all spray method* is used to impart a color to the entire surface of a container. This spray coating is given a high firing and becomes fused to the glass. Following this, a design may be imparted by screen and fired on as usual, and thus a vari-colored effect is achieved that somewhat resembles Bohemian glass.

Not without its advantages is what is called the *dusting method*, formerly used very extensively, although now just about passé. By this method, the design is printed on the bottle with a plate carrying an adhering solution only. The color in powder form is dusted onto the design and adheres to the portion of the glass which has been printed with the adhering solution. The firing operation, at the customary (Continued on page 210)

PEBBLED BOTTLE and beverage color make effective background for screen label. One of original uses was for milk. PHOTO COURTESY THATCHER GLASS CO.

ONE OF THE FIRST of the ACL bottles outside dairy and beverage was turpentine. PHOTO COURTESY OWENS-ILLINOIS GLASS CO.

SILK-SCREENED pink imprint helps to make a stunning package of jet-black jar for Tussy cosmetic products. Screen method is the most widely used for imparting designs to containers. PHOTO COURTESY CREATIVE PRINTMAKERS, INC.



SLACK-SUIT BOOK

**Cartons with interlocking hinge sell pants and shirt as set;
can be detached for separate sales or special combinations**

Retailers will always welcome an idea to increase unit sales. A package that helps to ring up the sale of two pieces of merchandise instead of one is therefore a decided advantage.

The new book carton adopted by A. Sagner's Sons Co. of Baltimore for its Northcool slack suits is that kind of package. Actually it is two separate, tuck-in, end-flap folding cartons, each made with a large cellophane window. The cartons are designed to lock together by specially engineered flaps on one carton and slots down one side of the other so that when attached the two compartments open like a book.

When the book is opened, the slacks may be seen through the cellophane window on one side and the shirt through the other. The package may be placed upright for display on the counter or in a window.

The theory is that when the shopper sees the matching pants and shirts, neatly packaged together, he is much more apt to buy them together as a set than if he went into a store to buy a pair of slacks or a sport shirt and saw them displayed separately.

The detachable feature of the two cartons permits the dealer to sell either of the items separately if the customer is desirous of purchasing the slacks or a shirt alone.

The detachable package feature also offers an opportunity for selling various sizes and for mixing colors. If a customer wants a blue shirt and tan pants, or vice versa, such a sale may be made by unlocking the boxes and matching up whatever combinations or sizes are desired. End panels on each half carry all information concerning sizes, lot numbers, etc., so that it is a simple matter for the sales person to assemble desired purchases. An open sample on the counter which the customer may see and feel eliminates the necessity for opening the pre-pack. However, if a customer insists on examining the slack suit in the package he selects the garments may be taken out of their cartons through the tuck-in flaps on the ends.

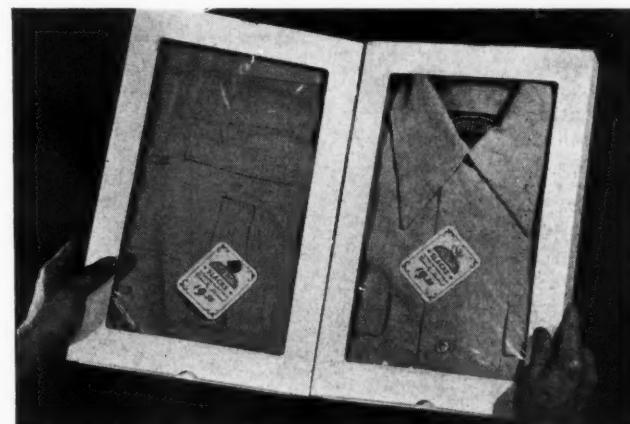
This package, with trade name printed on it, identifies the Northcool sportswear with the name of its maker. Further identity is provided by tags on each garment which show through cellophane windows.

The packages have only recently been introduced, but are reported to have gained very favorable reaction from dealers. Since it is also an attractively boxed gift item, the book carton is expected to have particularly good merchandising possibilities for Father's Day promotions.

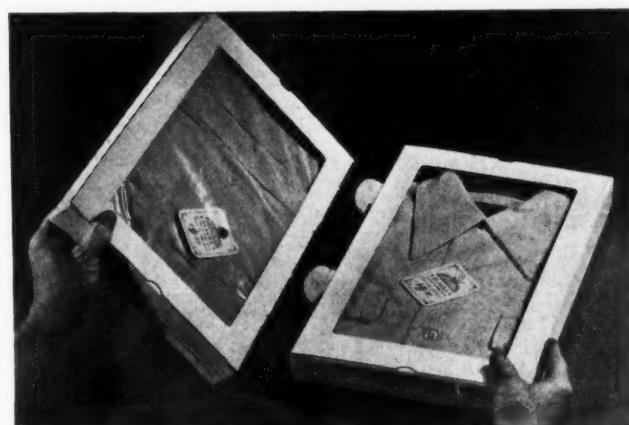
CREDIT: Carton, developed and manufactured by Gordon Cartons, Inc., Baltimore, Md.



LOCKED TOGETHER, two transparent-window cartons.



OPEN FOR DISPLAY, pants and shirt are both visible.



DIE-CUT FLAPS unlock the cartons for separate sale.



CELOPHANE OVERWRAP covers an almost impregnable skin made up of gray paper, glassine, stockinette and a thick dip coating of pitch. These hams and bacons are intended for export, which requires long storage without refrigeration.

PITCH-DIPPED MEATS

Swift Sealtite package preserves hams and
bacon slabs for months without refrigeration

Sometimes a package having unique properties will automatically create for itself new markets over and above those for which the product was originally intended.

A case in point is that of Swift & Co., Chicago, whose Sealtite hams and bacon, developed prior to the first World War solely for the export trade, are now finding new market opportunities as gift items to be shipped to relatives and friends in Europe and other areas where the food situation is acute.

The special virtue of the Sealtite cured meats is their ability to remain wholesome and palatable for several

months without refrigeration—a property made possible by the special type of packaging they incorporate. For a number of years, Swift's have been shipping these glistening black-coated products to Mexico, equatorial Africa and other distant countries where refrigeration is an uncertain quantity. Alaskan canneries also buy these meats because they can be stored for long periods without refrigeration and served to the workers during the summer months.

Not until after World War II, however, when many Americans became interested in sending meat and other food products abroad, did Swift & Co. begin to make

some of the Sealtite hams and slab bacon available to the domestic market for this purpose. The products are now being sold through several large retail food outlets in New York City and Chicago and appear to be firmly established as gift food items for shipment to foreign countries because of their remarkably long keeping qualities.

Swift & Co. product authorities report that hams and bacon in the special Sealtite package may be safely kept from three to four months without refrigeration, although the meats are not specifically guaranteed for any stated period. There are instances in which the products have been kept considerably longer than that without damage, but the company emphasizes that such extended storage is not recommended.

Basically, the Sealtite package is an airtight shell built up of layers of cotton stockinette, gray ham paper and glassine, sealed by a continuous dip-coating of "pitch" and finished off with an unprinted cellophane overwrap. A printed label, bearing the seal of inspection of the U. S. Department of Agriculture and stating the net weight of the product, is placed on the ham or slab of bacon before the final cellophane wrap is applied.

Because of the unusual storage conditions which they must meet, the Sealtite hams and bacon must be specially processed. They are considerably drier than

their domestic counterparts, due to the extended cure and long, heavy smoke received in processing. Moisture content must be reduced to a minimum prior to packaging to inhibit mold formation. The extra processing required, high shrinkage from green-product weight and specialized packaging render the Sealtite products relatively expensive and rule them out of the regular domestic market, in which their keeping qualities would be no particular advantage.

Packaging procedures for the hams and slab bacon are essentially the same. Hams packaged in this manner are of the "skin on" variety, must be cooked prior to consumption and usually range from 10 to 14 lbs. net. After curing and smoking, they are moved by overhead trolley to the department where packaging is applied.

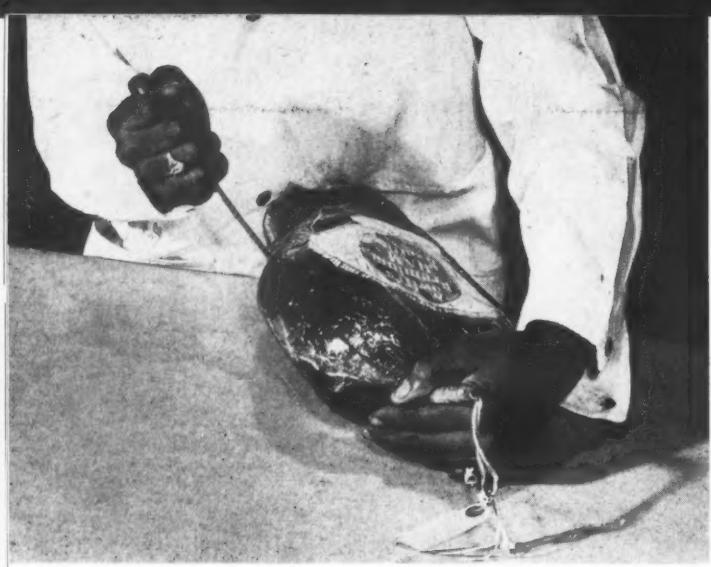
Each ham is first placed in a cotton stockinette bag, over which two layers of gray ham paper and one glassine wrap are applied, followed by a second stockinette. Thus covered, the ham is then dipped manually into

PHOTOS COURTESY SWIFT & CO.



WRAPPING HAM with gray ham paper and glassine prior to the application of the second cotton stockinette and double dip coat of pitch.

DRAINING PITCH after dip in vat at 370 deg. Pitch, which is double-dipped at both ends of the ham and averages about $\frac{1}{8}$ in. in thickness, never comes in direct contact with ham or bacon.



OPENING PACKAGE is started by slitting of the cellophane and the pitch coating with a knife, which permits the withdrawal of the wrapped ham.



SLIT COVERING is drawn back, revealing the inner wrappings of gray ham paper and glassine. Note that pitch does not penetrate to the meat.

PACKAGE REMOVED, conventional smoked ham is in stockinette. Consumers are instructed to allow ham to air for 24 hrs. before cooking.



vats of hot pitch having about the same consistency as molasses. Temperature of the melted pitch, a refinery product, is approximately 370 deg. F.

Suspended by a string, the wrapped ham receives two dips on the shank and butt ends, in order to build up extra thickness at the points where the product will receive the most handling. The rest of the product is given a single dip. During the dipping process, the ham is held submerged momentarily to permit the escape of entrapped air. The pitch used in sealing these products comes in metal containers which are stripped off so that unmelted material may be added from time to time to maintain the proper level. Vats are heated by steam coils.

After the dips have been completed in a series of vats, the hams are permitted to drain briefly and suspended on trolleys until the pitch has hardened. Finally, the label is applied to the slightly tacky surface of the coating and the cellophane wrap is put on the product. In the finished package, the protective pitch coating averages about $\frac{1}{8}$ in. in thickness. It will withstand exposure to fairly high temperatures without damage. Low temperatures cause some embrittlement of the coating, but its protective qualities are maintained unless it is fractured when subjected to impact or rough handling.

The red-white-and-blue Sealite label, printed by Swift in both English and Spanish, instructs the consumer to "remove the cover and hang in a dry place for 24 to 48 hrs. before cooking." This gives the product an opportunity to air out. The sealed jacket is easily removed by slitting the dip coating from one end of the ham to the other, after which the product is withdrawn from the stockinettes and layers of paper. There is, of course, no reclosure; the product must be cooked once the package is removed.

Swift officials state that a rip-cord type of opening may be adopted later, further to simplify the unsealing process. A revised label now in preparation will include cooking instructions in addition to the information on the present label. Since about 20% of the gross weight of the product consists of the composite package, the Sealite items are sold on a net-weight basis. Close check on the actual product weight is maintained by a control tag which is kept on the ham or slab of bacon from the time processing is completed and the product is ready for packaging.

The Sealite package makes it possible to buy a ham or slab of bacon in this country for shipment abroad with assurance that the product will be in good condition when unpacked for eating. For regular export shipment, the products are packed in heavy wooden export cases. Single Sealite items shipped from this country as gift items must be packed in such a manner as to guard the protective covering against the possibility of damage.

CREDITS: Pitch, Trumbull Asphalt Co., Chicago. Gray ham paper, Kieffer Paper Mills, Ewing, Ind. Glassine, Rhinelander Paper Co., Rhinelander, Wis. Cellophane overwrap, Sylvania Div., American Viscose Corp., New York.

GUIDE-LINE PACKAGE

Clever "template" folder enables television owner to custom fit his own Polaroid filter from one of five stock blanks and simplifies handling by both factory and dealer

A first essential in introducing a new product is dealer acceptance, and packaging often has a very important bearing on selling the dealer.

An outstanding example is the package adopted by Pioneer Scientific Corp., New York, for Polaroid television filters—new devices made to fit over the screens of home television sets to sharpen the image and eliminate glare.

Packaging and merchandising were complicated by the fact that there are about 60 types of television sets on the market, with many different sizes and shapes of screens.

As Polaroid filters are relatively expensive, dealers could not be expected to stock 60 different sized filters, nor could they be expected to use valuable shelf space to store that variety.

The package designers commissioned for the job solved the problem effectively by narrowing it down to five sizes of filters, classified according to the tube size of each television set, and packaging the filters in only two sizes of set-up boxes. Inside the box, each filter is wrapped in a heavy paper folder which has one surface printed as a multiple template, or pattern, of the screen frames of the various types of sets. With this template

as a guide, the consumer may cut any filter to fit the exact frame of his particular set. A glassine envelope included in the box contains double-faced pressure sensitive adhesive tape discs or "dots" used to hold the filter in front of the television set screen.

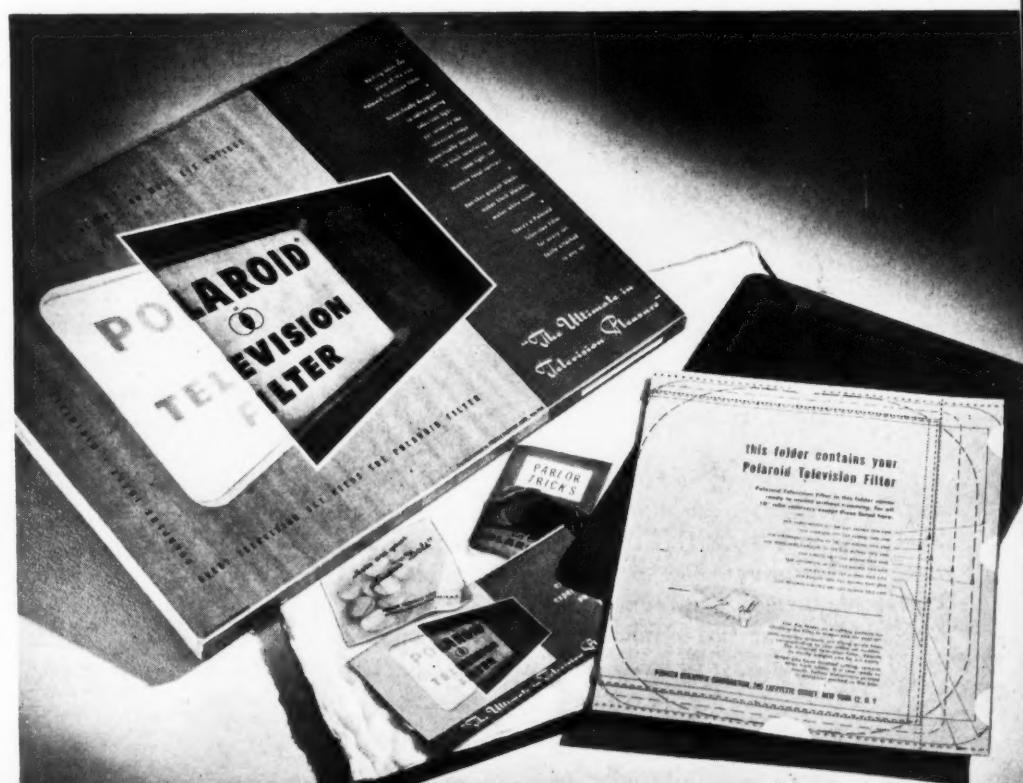
Each filter is protected in its box by layers of cellulose wadding.

Use of the product is suggested by the lithographed box-cover design, on which is reproduced the frame of a television screen as though partially covered by a Polaroid filter. The effect of clarity of the filter is heightened in the design by spot varnishing that portion representing the filter. Background is wood grain to simulate the case of a television set. Contrasting color for the side panel is blue, selected because it is believed a favorite color with men, who purchase most of these filters.

Promotional inserts in the box, as well as display material for the product, carry the box-cover design.

CREDITS: Design, Korda Associates, New York. Lithographed box wrap, labels and folders, S. Novick & Sons, New York. Box, Specialty Paper Box Co., Brooklyn. Cellulose wadding (Kimpak), Kimberly Clark Corp., Neenah, Wis.

SCREEN DESIGN, suggesting use of product, is spot varnished to highlight part representing the filter. Folder in which each filter is packaged is printed as a multiple pattern of screen frames to guide consumer in cutting his filter to fit.





MACHINE-MADE acetate box top brings package cost down 30% from hand-made. Visibility of J. H. Cristil's colored aluminum tumblers is a vital merchandising factor in gift-shop sales.

PermaHues ON VIEW

Transparent box top produced economically on new automatic machine gives tumbler manufacturer the sales push he needed

It was a case of love at first sight when Joseph Cristil saw his company's PermaHues colored aluminum drinking tumblers in a transparent-plastic-topped gift box. The only hitch was the cost.

Mr. Cristil was convinced that the new package would be the best one he could possibly get, but the cost of a hand-made cellulose acetate box top was more than he felt his product could bear.

He had been struggling to find a better, more effective display package for the aluminum tumblers at a reasonable price since the J. H. Cristil Co., Indianapolis, Ind., started in business in 1946 producing the tumblers. At the beginning, all packaging material supplies were tight, so it was a case of doing the best with whatever could be obtained. In describing that first package,

Mr. Cristil, himself, says, "I settled for a sort of shoe box. It held eight tumblers...that's the most that could be said about it."

The strongest selling point for the tumblers was their color. Although gift buyers were quick to place first orders, repeat orders were slow to come in. Lack of sales was easily traced to the fact that the tumblers weren't visible without taking them out of the package—a detail not many gift shop clerks bothered about, according to Mr. Cristil.

As soon as possible, therefore, this package was discarded in favor of a paperboard box with top flaps that could be folded back to display the tumblers in the store. Ratio of sales to visibility of the rainbow-hued tumblers was so apparent from the reports which came

through on the second package that Mr. Cristil knew when he saw it that the acetate top was the answer. Not only would the proposed package sell the tumblers by its display qualities, but gift shops would be receptive to the package since no other gift wrapping would be necessary.

Fortunately, the package supplier knew that the acetate box tops would soon be available at a much lower cost due to a new machine, then being tested,* which would turn out completely fabricated set-up boxes of acetate fully automatically and at high speed. This information, combined with Mr. Cristil's decision that he could legitimately charge a portion of the cost temporarily to advertising and sales promotion, seemed to justify making the change at once and using the higher-cost hand-made top while the automatic machine was made ready for production.

The acetate-topped gift package has literally put the young company on its feet after it had almost lost its initial battle for acceptance through the earlier lack of effective packaging. Samples of the new package were shown at New York and Chicago gift shows last fall for the first time and reports were that they created quite a sensation. Two advertisements in December issues of *The New Yorker* showing the gift package brought a flood of Christmas orders.

In April the first order, totalling 10,000 units of the automatically made box tops, was delivered to the company. As anticipated, packaging costs were promptly lowered. Unit cost for this first shipment was 30% less than that of the hand-made tops. This saving means that advertising can be increased. Current plans, Mr. Cristil says, are to start ads in summer copies of *House Beautiful* as the first of several nationally distributed publications.

The PermaHue tumblers come in two sizes, 14 and $6\frac{3}{4}$ oz. Each tumbler is a different Aluminite† color: gold, silver, aqua, chartreuse, cherry, maroon, light blue and navy blue. They are packaged in sets of eight in the gift boxes, each size requiring a different sized package, but otherwise exactly alike. The bottom base—paperboard with a white inner liner and shiny black flint paper outer liner—provides an effective contrast for the colored tumblers. Top of the smaller size is $10\frac{1}{8}$ in. long, $7\frac{5}{8}$ in. wide and $1\frac{1}{4}$ in. deep. The larger top for the 14 oz. tumblers is 11 in. long, $10\frac{1}{8}$ in. wide, and $1\frac{1}{4}$ in. deep. The tops, using 0.0075-gauge acetate, fit inside the base and rest on the tumblers which, when placed inside, project above the base top about $\frac{5}{8}$ in.

In making the change-over to the automatically made tops, the depth of the acetate top was reduced approximately $3\frac{1}{2}$ in. in order to be able to produce them on the machine. This change necessitated re-arranging the tumblers in the base. Previously they were placed upright in a die-cut tray inside the base. Now they are laid on their sides in two rows of four each. Not only has this new arrangement played up to an even greater

degree the colorfulness of the tumblers for display, but packaging costs were decreased through the elimination of the inner tray and its replacement with narrow, inconspicuous white paperboard dividers.

No name or trademark appears on the package itself to detract from its display or gift-package appeal. Only a small pamphlet, slipped inside a tumbler in the box, gives use features and instructions for care. Gold stamping of the name on the next order of the box tops is contemplated.

When the boxes are ready to be packed for shipping, an inexpensive paperboard cover is slipped over the acetate top for protection against scratching or dust. Six sets of the packaged tumblers are packed in each of the shipping cartons.

The company is planning to add new items such as pitchers, swizzle sticks, jiggers and trays to its line of colored aluminumware. Coasters are already being made, but not yet on the market. The coasters package, same as for the tumblers, has hand-made acetate tops because the number produced is still relatively small, but the dimensions of the top were planned in advance so that they can be machine-made without any problem of change-over.

This plan is significant from the production viewpoint because the machine, which is capable of producing 1,000 set-up boxes per hour (cutting off acetate sheet from rolls, die-cutting the blanks, crimping the sides and solvent-sealing the corners), requires preliminary "set-up" whenever the size of the box is changed. Adjustments are made from the indexing mechanism for the cut-off to the positioning of the block form used to hold the sides of the container rigid during the sealing operation.

CREDITS: Complete package, Paper Package Co., Indianapolis, Ind. Acetate, "Vuepak," Monsanto Chemical Co., Springfield, Mass. Box-making machine, "Trans-Bo-Matic," American Tool Works Co., Cincinnati, Ohio.



TRANSPARENT TOP fits inside the set-up paperboard base and is supported by tumblers. The base is covered with black flint paper outside and lined with white. Tumblers come in 14- and $6\frac{3}{4}$ -oz. sizes. This package is for small size.

* See MODERN PACKAGING, June, 1947, p. 102.

† Patented process of the Aluminum Co. of America, Pittsburgh, Pa.



MODERN PACKAGING



1 A round, flat can with a telescoping lid in which an acetate disk has been inserted for visual inspection of the contents by the consumer has been adopted by Zausner Foods, Inc., for its packaged gruyere cheese. Individual portions of cheese are in a labeled gold-foil wrap and the packaging motif of the can is carried out by lacquering the can in gold.

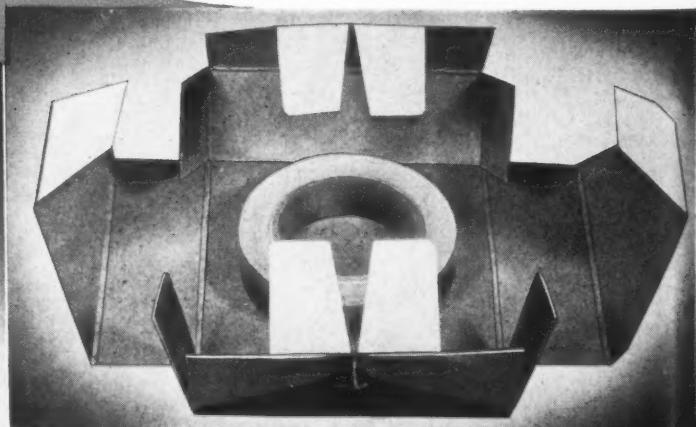


2 Simulated cut-out letters spell out the trade name on the new package for Lord's of Boston "Summertime Assortment" of candies. Within the lettering are full-color reproductions of typical summertime scenes—golfing, boating, fishing, sunbathing—to convey the appropriateness of the product for the summer months. The box has a cellophane overwrap. Design, Fannell Studio, Boston. Wrap, Strathmore Press, Boston. Box, The Box Craft Co., Cambridge, Mass.



3 Applied color labeling (see p. 120 of this issue) on bottles for Kleen-No-Flame, a new household preparation put out by No-Flame Sales, Inc., Fresno, Calif., shows unusual effectiveness and definition of small lettering for informative matter by this method of printing. The 32-oz., Boston-round, flint-colored bottle has a standard 28 mm. cap coated with an acid-resistant finish. Bottles and caps, California Eureka Bottle Supply, agents for Anchor Hocking Glass Corp., Lancaster, Ohio. Labeling, Ceramic Decorating Co., Los Angeles.

4 This intricately die-cut and scored folding carton for packaging a roll of Tuch-Tape, pressure-sensitive tape marketed by the Technical Tape Corp., securely supports the roll in place without touching any of the side walls. The open carton blank illustrated below shows the twin tabs that fold to lock the roll in place. No matter which way the carton is turned, the product remains in position. Top flap is folded over to form display. The carton is made of super white patent coated newsback board, three color printed and varnished. Design, B. Tockar, New York. Carton, Universal Folding Box Co., Inc., Hoboken, N. J.



PAGEANT

5 Metal screw caps for L. A. Nut House peanut-butter jars have been redesigned in a pattern similar to that of the jar labels. Plans are being made by the manufacturer to revamp other product packages in the line to tie in with this new decorative idea. Closures, Western Crown Cork & Seal Co., San Francisco.

6 Low-cost gift packaging for Ziploc Co.'s new watch strap that operates by means of a zipper is achieved by use of a die-cut card with gold cover paper. Strap, with foil-covered price tag attached, is placed in the opening and the card slipped into a cellophane envelope. Design, Ben Nash, New York. Card, A. Fleisig Sons, New York. Cover paper, C. R. Whiting Co., Inc., Hackensack, N. J. Cellophane envelope, Comet Envelope & Paper Co., New York. Price tag, Arkadia Label Co., New York.

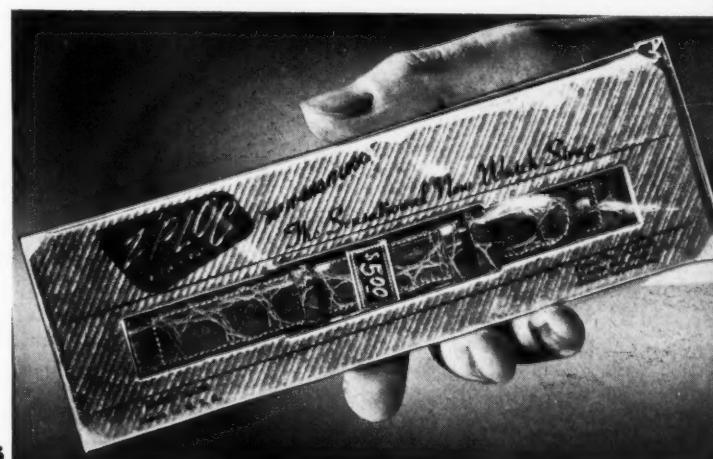
7 The cookie package for use in this year's annual Girl Scout Cookie Drive, designed to appeal both to children and adults, features a Scout, the Scout Trefoil insignia and Scout activities. The one-piece folding carton is printed in four colors on 0.020 white patent coated newsback board and cellophane overwrapped. Box, Hollywood Paper Box Div., Flintkote Co., Los Angeles.

8 Pal Blade Co., Inc., has replaced its old two-piece, slide-and-shell box with a new one-piece folding carton retaining the vault section for disposal of old razor blades. The "Little Pal" trademark character is featured alongside an arrow pointing to a die-cut opening in the front panel where used blades are inserted. Design, Al Alko, New York. Carton, Chopp Printing Specialties, Inc., New York.

9 Modernized cartons for Double Danderine, marketed by R. L. Watkins Co. Div., Sterling Drug, Inc., convey the effect of an ethical drug product. Simplicity of new design without pictorial illustration has less chance of becoming outmoded with changes in hair fashions. Carton, Container Corp. of America, Chicago.



5



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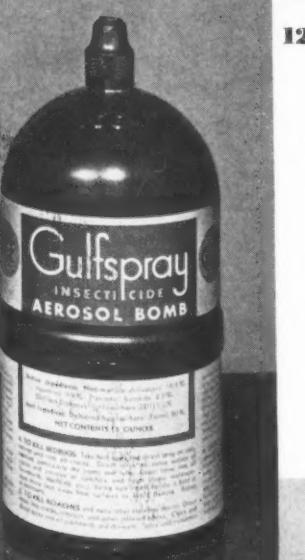
MODERN



10



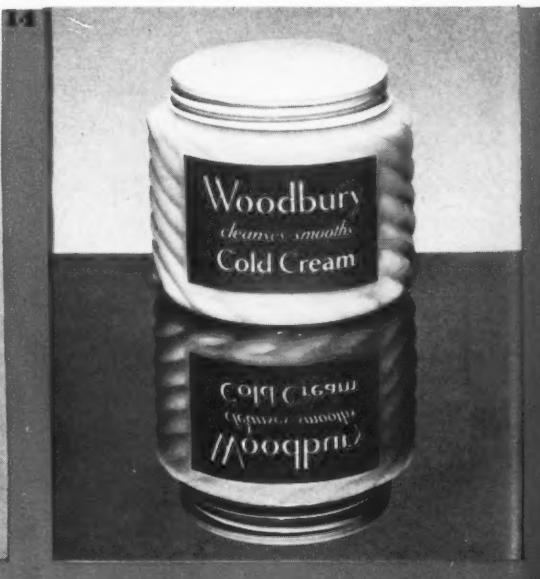
11



12



13



136

10 Designed to create larger unit sales, this "Ming Ensemble" gift set containing a SyrocoWood ash tray, cigarette box and book ends is packaged in a set-up box designed to carry out the Chinese Modern theme suggested by the product. Top of the box is covered with coated red paper imprinted in black; the base is black. An inner die-cut tray holds the items. Design, Freda Diamond, New York. Boxes, J. F. Friedel Paper Box Co. and Chas. L. Jordon & Sons, both of Syracuse, N. Y.

11 This convenient transparent kit for first-aid products marketed by Bauer & Black, Div. of The Kendall Co., is made of polystyrene. The hinged lid has the Curity trade name molded in the center. Inner dividers separate each of the items. Box, Central Plastics Corp., Leominster, Mass. Polystyrene, Koppers Co., Inc., and Dow Chemical Co.

12 The adoption of light-weight tinplate for Gulspray aerosol bomb dispenser (left) to replace the heavy steel container (right) formerly used has resulted in a 45% price reduction of this Gulf Oil Corp. insecticide. The new lithographed container resembles an ordinary metal can with a push-button release set on a concave head. Container, Continental Can Co., New York.

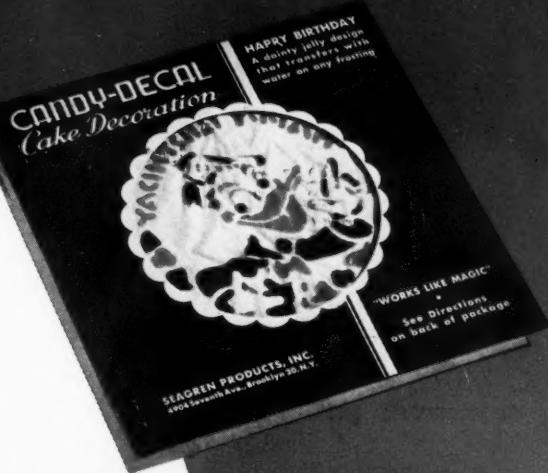
13 Spot shoulder labels carrying the legend "Say Corby's" add a provocative sales message to the new line of Corby's whiskey put out by Jas. Barclay & Co., Ltd., of Peoria, Ill. The high shoulders and tapering neck of these private-mold bottles blend well with the label design. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Labels, Fleming-Potter Co., Peoria, Ill.

14 Woodbury's private-mold cold cream jar is among the first of the company's line of facial creams to appear in this new distinctive swirled rope design. The opal jar has a raspberry-colored label with lettering in reverse white. Jars, Hazel-Atlas Glass Co., Wheeling, W. Va., and Carr-Lowrey Glass Co., Baltimore, Md.

PACKAGING PAGEANT



15 A stapled folder with a circular die-cut opening in the center to permit product visibility has been adopted by Seagren Products, Inc., Brooklyn, for packaging their candy-decal cake decorations. The decoration, made of jelly, is mounted to a sheet of tissue and covered with a cellophane sheet. A piece of cotton wadding, used to wet the cellophane cover sheet in applying the decoration to the cake, comes with the unit. Directions for use appear on back panel. Folder, Bordwin Paper Co., New York. Cellophane, Sylvania Div., American Viscose Corp., New York.



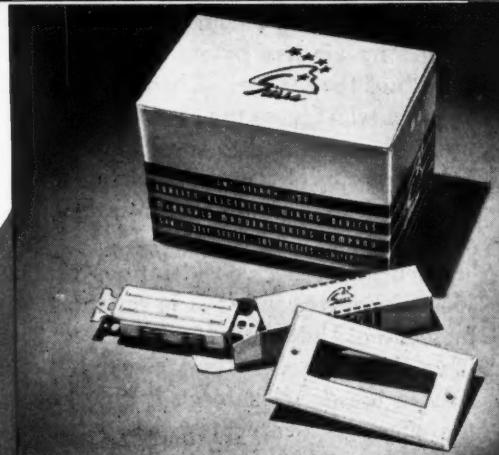
16 Nabisco's Triscuit wafers are appearing in a newly designed package with a realistic reproduction of the product on the front surface and a full-color photograph of a tray of the wafers used as a base for canapes, together with recipes for making them, on the back panel. The red Nabisco seal appears on end panels.

16



17 The new design adopted by McDonald Mfg. Co. of Los Angeles for packaging its "Sierra Triplex" electrical wiring outlets has been applied both to the small individual cartons and to the large one for holding a dozen units. The horizontal black bands, lettered in reverse white, form a clean-cut pattern against the terra cotta background coloring. The cartons are varnished for longer shelf life. Design, Henry Hughes, Belmont, Calif. Cartons, Standard Paper Box Corp., Los Angeles.

17



18 Harriet Hubbard Ayer has redesigned its entire line of cosmetics packages in a manner that gives them a streamlined new look yet retains their recognition value. The long-used black and white coloring is unchanged. The company name, in script, now appears on all packages and all lettering has been modernized. Paper labels have given way to silk-screen lettering applied directly to the containers. Smart white plastic caps replace the old metal closures. New jars are white and enamel sprayed to give them a luminous quality. Design, Joseph B. Platt, New York.



Air Cargo Angles

Research indicates many ways in which packagers can save; pallets and mechanization can cut time and cost.

By GLYN JOHNS *

The growth of air cargo shipment of packaged goods during and since the war has been little short of phenomenal. With rates steadily declining as volume grows, there are now many specialty fields in which shipment by air is the rule rather than the exception and there are practically no packaged products which do not frequently call on air cargo for rush service.

Despite all that has been published and preached on the subject, however, the development of advantageous special packaging techniques for products to be transported by air has by no means kept pace with the growth of the service. There are still many regular air shippers who ignore the obvious fact that goods carried by air are subjected to considerably less handling than in other forms of transportation and, therefore, present opportunities for important savings in reduction of tare weight.

There are other considerations that are not so obvious, however, and it is in an effort to explore these factors that United Air Lines has recently been conducting exhaustive tests and research projects. Studies have included such subjects as palletization of cargo and the effects of temperature and altitude on containers and their contents. It is, of course, our wish to pass the information along to packagers and shippers.

The weight question

Lightness in weight must be one of the first considerations in studying air-packaging requirements. Much of the traffic being carried today is packed in shipping departments accustomed to packing only for surface transportation, with the result that frequently shipments are found where the item weighs less than the container. There are many cases where we receive shipments in heavy crates obviously designed for ocean transport and completely unnecessary in air transport. Various authorities have estimated that if standards

* Superintendent of Cargo Service Equipment & Procedures, United Air Lines.



MAGNESIUM PALLET with cargo cage weighs 63 lbs., holds 1,000 lbs. of freight. Pallet size is such that they can be secured on either side of plane, leaving wide working aisle.

applicable to air transportation could be applied in the packaging of shipments going overseas by air, from 25 to $33\frac{1}{3}\%$ more cargo could be carried in the same planes.

Under average circumstances, in cargo planes, weight is used up before space is used up. Therefore, weight is of utmost importance. Tare weight must be reduced wherever possible for economy's sake and to accomplish the best use of airplane equipment.

It is true that strength cannot be disregarded in achieving lightness. But the handling and the hazards that shipments encounter when they move in air service are usually much less than is the case in surface transportation.

In rail traffic, there is a vast difference between the smoothness of transport in streamlined passenger trains in comparison with freight trains. In motor traffic, a person accustomed to the comforts of his private automobile would be highly uncomfortable on a long journey in a truck. On the other hand, the same air-cushioned smoothness of flight that makes air travel enjoyable to passengers will protect the traffic that moves in packages.

Palletization

In order to get the full benefit of air transport speed, there must be economy on ground time. For this reason, United tries to load all small packages going to the same destination in bags or containers, or otherwise combines them into unit loads for speed in handling. This normally gives additional protection to the package itself.



FORK-LIFT TRUCK puts loaded magnesium pallet through cargo hatch, where it is skidded into place. Use of these pallets increased loading efficiency 10 times at United Air Lines.



FLIMSY PAPER BOXES are adequate for shipping flowers by air although they would not do for other methods of transportation. Packagers must learn that heavy containers are unnecessary for merchandise shipped by air and add to shipping costs.

United recently finished a test on palletized loads. The type of equipment used included 10 magnesium pallets of the cage type, 30 by 36 by 60 in. high, weighing 63 lbs. each. This pallet consists of a magnesium base with 1 $\frac{1}{2}$ -in. mesh 0.010 wire sides and a removable gate on one side. The height was governed by the fact that the door is only 65 in. high. For accessibility of containers, an adequate aisle had to be provided. By placing the 36-in. side against the wall, we can place these containers on both sides of the cabin and still allow for a 45-in. aisle. This amount of space allows a container to be removed from any part of the plane. The C-230 Cargoliner is 105 in. wide at the largest width.

In addition to the 10 magnesium pallets, six wire folding baskets were used. These baskets measured 30 by 45 by 24 in., weighing 126 lbs. each. This type of container had one good feature in that the sides could be folded to provide a flat pallet and could easily be stacked in a small space. The weight of this container precluded its use as a standard item. It was a factory type, built to handle loads up to 6,000 lbs. Because of our floor restrictions, we had to be satisfied with a 1,000-lb. capacity. The manufacturer is studying the possibilities of reducing the weight of the container to correspond with 1,000-lb loads.

Ten wooden pallets 36 by 36 in. square, weighing 30 lbs. each, also were tried. The purpose of using this type of pallet was to study the possibilities of pre-loading shipments that did not fit within the magnesium containers.

In order that we might move the above-indicated

equipment around easily within our planes, a Lyons-Raymond standard hydraulic lift was used. This type of equipment had 36-in. fingers and in our test it was discovered that a maximum of 30 in. would be sufficient for our purposes.

The results shown in Chart I were accomplished at Chicago in a DC-4 mockup. The readings indicated in this chart are the result of only one test run for each. With assimilated loads, the lbs./min./man in loading is over 10 times greater in Test No. 5 than in Test No. 1. So-called "dry runs" were accomplished in mockups and the results checked against actual operations.

On the basis of the test and the records, we discovered that coast-to-coast Cargoliner 230 scheduled time could be reduced by 52 min. The saving would mean a 10.4 man-hour reduction in cost for each Cargoliner 230 trip.

In present air transportation, cargo rarely is stacked more than 3 ft. high. In exclusive cargo planes, when available, it will be stacked 5 to 6 ft. high. These conditions, of course, are a factor to be taken into consideration in planning the strength of packaging. There is not, nor is there likely to be in the future, much storage at airports. The very speed of air transportation dictates that shipments spend little time in intermediate storage between the time they leave the shippers and the time they reach the consignees.

Gust loads

The strength of packaging must take into consideration the possibility of gust loads and turbulent air. United's engineers figure, however, that gust loads can

CHART I—TEST OF PALLETIZED LOADING IN DC-4 MOCKUP

Test No.	Loading operation (min.)	Unloading operation (min.)	Cargo handling (lbs.)	No. of cargo handlers	Loading		Unloading	
					Lbs. per min.	Lbs. per min. per man	Lbs. per min.	Lbs. per min. per man
1	29.5	19.7	5,600	6	195	32.5	284	47.3
1-a	32.7	24.8	5,600	6	172	28.7	226	37.7
2	22.8	17.1	5,600	6	246	41.0	327	54.5
2-a	23.0	22.5	5,600	6	244	40.7	249	41.5
3	18.6	17.1	5,600	6	301	50.1	327	54.5
4	15.0	12.0	5,600	6	374	62.3	466	77.8
5	9.0	8.5	6,000	2	667	333.5	705	352.5

Test No. 1—Open cabin arrangement, fork lift and four baggage tubs.

Test No. 1-a—Open cabin arrangement, fork lift and four pre-loaded hand trucks (used inside cabin).

Test No. 2—Cargo pits both sides, fork lift and four baggage tubs.

Text No. 2-a—Cargo pits both sides, fork lift and four pre-loaded hand trucks (used inside cabin).

Test No. 3—Cargo pits one side, fork lift and four baggage tubs.

Test No. 4—Cargo pits one side and Heil lift.

Text No. 5—Open cabin, fork lift, special hand lift in cabin and 10 pre-loaded pallets.

be provided for if a provision is made to protect against a maximum of three times the weight involved. If the article is packed so that it will not shift in the container, there is little likelihood of damage from any of the strain to which it can be subjected in flight, particularly in view of the fact that in air transportation we securely tie down cargo.

Humidity

We recognize that relative humidity is an important factor in packaging, from the standpoint both of protecting the contents of the package and preserving the strength of the package itself. This is a problem on which work already is being done. Cargo planes now have heating apparatus installed, just as do the passenger planes.

We need to find out from the packagers themselves, both from the standpoint of the product and from the

standpoint of the package, the permissible variations in relative humidity. Then we can determine how far we have to go in providing humidity control.

Atmospheric pressures

We do not believe that the difference in atmospheric pressures in flight is going to be a serious problem in connection with packaging in the movement of air freight.

While it is true that the standard atmospheric pressure is 14.7 lbs. per sq. in. at sea level and 6.82 lbs. per sq. in. at 20,000 ft., the difference between these two practical extremes need give no cause for concern if the requirements are recognized and packages selected accordingly.

One type of box used in a recent test by United Air Lines contained trays of flowers sealed in cellophane bags to conserve moisture. The effects of changing air

INTERIOR of high-speed cargoliner, capable of carrying 9 tons, shows the cargo pits on each side of center aisle. Packages are secured from shifting by straps.

NO NEED for heavy crates, even when shipping delicate pieces of furniture by air transportation. In this case, the shipper of a load of tables merely covered them with excelsior-and-paper padding—and cut his freight bill in half. Blankets will help protect pieces.



CHART II—ACTUAL TEST OF PALLETIZED AND NON-PALLETIZED LOADS, NEW YORK TO SAN FRANCISCO

Station	Flight No.	No. of pieces	Weight (lbs.)	Time (min.)	No. of cargo handlers	Lbs. per min.	Lbs. per min. per man	Remarks
Cleveland	901/26	71	1,228	2 ¹ / ₄	2	546	173	This includes one skid load of newspapers, 62 pieces, for 1,070 lbs. Time includes delivery to UAL cargo room
Chicago	901/26	117	2,645	11	3	240	80.2	Unloaded 100% palletized
Chicago	901/26	165	4,401	52	5	84.5	16.9	Loaded non-palletized, individually handled
Philadelphia	901/23	12	159	1 ¹ / ₄	2	127	63.5	
Cleveland	901/23	6	85	1	2	85	42.5	
Chicago	901/23	170	2,448	9	3	272	90.7	Unloaded 100% palletized
Chicago	901/23	116	2,124	46	6	46.2	7.7	Loaded non-palletized
Denver	901/23	47	1,369	6	2	228	114	Includes four skids with loaded dress boxes
Oakland	901/23	25	552	3	2	184	92	
San Francisco	901/23	183	3,518	11	4	320	80	Three fork lifts used. Time includes delivery to UAL cargo room

pressure during flight and landing were checked by observing a sensitive altimeter sealed in a bag. The air pressure inside the bag during ascent generally was about 0.1 lb. per sq. in. greater than that outside, causing the bag to bulge. During descent for landing the rapidly increasing pressure outside the bag and the lack of any rigid support inside caused the bag to collapse before the pressure equalized. There was no collapse when the cellophane bag was used over a box having four sides for support. Several cellophane-wrapped trays were vented by slitting with a $\frac{1}{8}$ -in. hole. This prevented collapse of the bags and there was apparently no serious loss of moisture through the opening during the trip.

In addition to the flower test, metal cans of various

capacities and with different types of lids were used in this experiment. These cans were separated into two groups. One of each size, ranging from a pint to a gallon, was filled $\frac{7}{8}$ full of water and one of each was filled $\frac{3}{4}$ full of water. The cans were loaded into the ship indiscriminately, with some in the rear of the cabin and some in the center. All cans, particularly those filled $\frac{7}{8}$ full, showed a pronounced bulge at 5,000 ft. The bulge increased gradually with the rate of climb and at 5,000 ft. they appeared to have reached the extent of possible expansion. A 1-gal., single friction-lid can developed a pronounced leak at 6,900 ft. From that altitude on up to 10,500 ft., all single-top cans showed evidence of leakage. There was no apparent change in double friction-, or screw- or pressure-top cans from 10,500 ft. on up to 25,500 ft.

When the descent started—during which we dropped 14,000 ft. in the first 8 min.—there was considerable contraction in some cans, particularly those with single friction-lid tops. Some noise was apparent, as when the pressure reduced, the cans had a tendency to resume their normal shape. Considerable care was used in putting the lids on all cans and the leakage in the single friction tops was undoubtedly due to the inability of that type lid to withstand the pressure.

Cargo planes of the future probably will not fly at high altitudes. Therefore, even though air freight and air express will travel in super-speed transports, no more serious pressure problems will be encountered than those of today at the average cruising altitude of 8,000 ft.

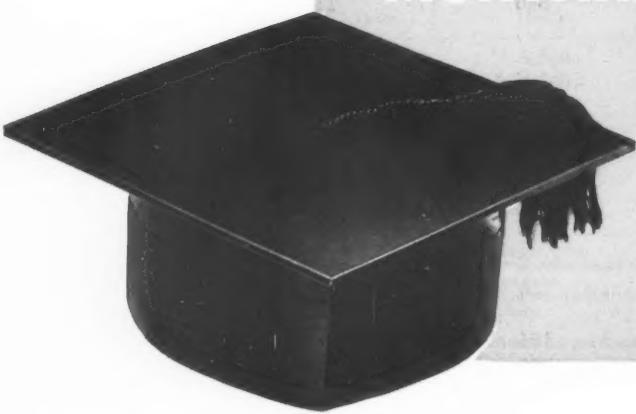
Handling and loading limits

The size and weight of the unit package to be carried by air must have careful consideration. Since most of the handling of air cargo today is by hand, a desirable limitation is that weight unit which can be handled by one man.

When we go beyond that limitation, handling costs go up because the drivers who (*Continued on page 214*)



ALL PHOTOS COURTESY UNITED AIR LINES



MORTARBOARDS FOR KEEPS

**Three firms adopt same gift package
and reap benefits of volume production
through the enterprising efforts of an
alert plastics supplier**

POLYSTYRENE is the material, injection molded in two pieces. Hole for tassel is drilled in lid. Box is equipped with a metal hinge which is invisible due to interior recessing in base.

"**Y**ou can't take it with you," that cap and gown rented for a few hours on graduation day—but a plastic box molded in the form of a miniature mortarboard hat used as a graduation gift package can last as a symbol of scholarship for a lifetime.

So quickly were the promotional possibilities of a re-use plastic package made like a graduation hat envisioned by makers of merchandise conventionally bought as graduation gifts, that three leaders in this field are using this container for their 1948 June graduation promotions: Bulova for watches, Coro, Inc., for pearls, and Evans Case Co. for cigarette lighters and compacts.

This situation is probably the first in which three nationally known firms have arranged to use the same container. The merchandising and economic aspects of it are considered so unique that the Harvard Graduate School of Business Administration is using this integrated packaging plan to include as one of its case studies for the coming year.

The procedure is unusual in that three companies, employing three of the country's top advertising agencies, will feature the plastic graduation-hat package in their national advertising, totalling many thousands of dollars, thereby each gaining by the promotional efforts of the others. Each of the three companies will have exclusive rights to the package in his own field—that is: Bulova will be the only watch company to have it; Coro, the only one to use it for pearls; Evans, for compacts and lighters. Each company benefits through lower costs of the container because of its usage by the others.

The mold costs for plastic containers of this type might have been prohibitive if one company had considered using the hats exclusively, but when the supplier of the container can amortize these costs by volume

sale to three large companies, the package unit cost is reduced to a figure that is feasible for all who might want to use it.

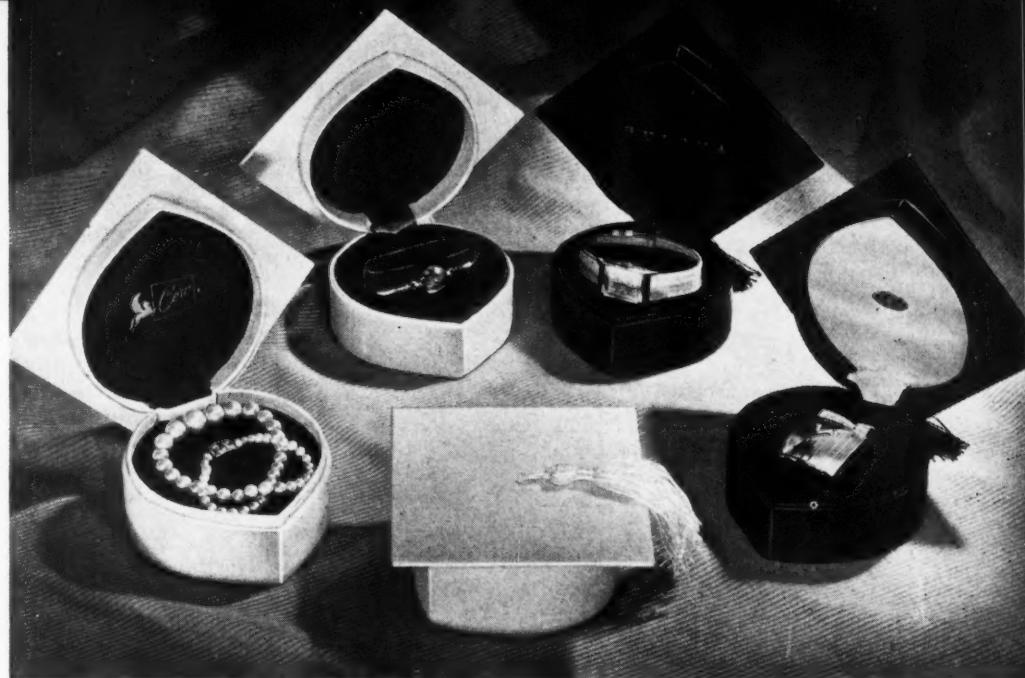
The success of this package is even more interesting as an example of how a supplier, with a clever idea, can not only merchandise his own product, but perform a real packaging service to get business for the users of his packages.

In this case, the graduation hat is the idea of a firm which has had broad experience in the merchandising of successful molded plastic containers, notably the phenolic top-hats so popular a few years ago for sets of manicure preparations. The graduation hat, the supplier knew, had unlimited sales appeal, but to invest the many thousands of dollars necessary to produce it demanded volume usage. The only way this could be accomplished was by doing a special sales promotion of his own with prospective users and convincing them of its advantages as a cooperative package. As a pre-test of its appeal he loaned 24 of the graduation-hat boxes to Colgate-Palmolive-Peet Co. to be used for promoting a new product as "first in its class" and shown by salesmen to 600 prospective dealer-customers. The results were 600 sales and 435 requests for the hat itself. In one case, an A & P dealer refused to place an order until he was promised one of the graduation hat boxes to put a watch in for his daughter's graduation.

Armed with this evidence, the maker of the package prepared a presentation for selected prospects, suggesting the hat as "the answer to the students' prayer"—a mortarboard hat for keeps—that was suitable as a package for watches, jewelry, other gift items, that had excellent re-use value as a cigarette box, trinket box, sewing kit, etc.

Acceptance by the three companies who adopted it was almost immediate. There were others who wanted it but, of course, it could not be offered to competitors in the watch, pearl or compact field. There are still other applications for it, however, in the cosmetic and perfumery fields, as well as specialized jewelry, confectionery and other lines.

IDENTITY for each company using the containers is gold-leaf stamped on interior padding to keep the outside devoid of advertising matter which might mar gift effect. Hats are made in black and white—preferably black for men, white for girls.



Great care was taken to make a quality plastic container. Polystyrene was chosen as the material because of its low cost and dimensional stability. The hats are injection molded in two parts, top and bottom, in six-cavity molds. The top is drilled to permit the tassel attachment. The base is shaped to give the effect of the point in the crown of the hat below the mortarboard. It is also recessed inside to house the metal hinge so that the outside surface of the container is left smooth.

The hats are made of black or white material, preferably black for men and white for girls, both traditional for graduations. No trade identification is put on the containers, so that they are free of advertising material when re-used as trinket or cigarette boxes. Each manufacturer, however, maintains his own identity by gold-leaf stamping of his name on the satin or velvet padding inside the boxes.

Each box is equipped with special padding and platforms that have been adapted to the user's particular requirements.

Coro includes a plastic tray to hold its pearls. This is convenient in re-use for holding small jewelry, while the larger compartment in the base can be used for bulkier items. Evans uses an inner piece designed two ways, to hold either a lighter or an oval compact. The top piece is easily removed by a ribbon tab. Bulova uses a maroon cardboard base as a support for a cushioned watch holder above it.

Each company has its own method of distributing the packages. Bulova is selling the hats empty to retailers who add the watch from present stock. Coro and Evans are both putting their merchandise in the boxes and selling them complete with product. Each puts the hats in cardboard boxes for protection and identification with the company name.

While this is a novelty item, it is estimated that it will have continued success for some time. In many

educational institutions there are mid-year graduations, as well as June ones. Certain specialized schools have graduations at other seasons. It is even expected that the packages will have appeal at Christmas time. Because the graduation hat is an international symbol of scholarship, the packages have already found markets outside the United States. It is said that they make a direct appeal to 32 million students plus their friends and relatives. They lift the products they package above competition through the addition of this novelty appeal.

CREDITS: *Designed and manufactured by Oxford Products Corp., Boston, Mass. Molders, Dapol Plastics, Inc., Worcester, Mass.; The Morningstar Corp., Cambridge, Mass., and Oxford Products. Polystyrene, Dow Chemical Co., Midland, Mich.; Monsanto Chemical Co., Springfield, Mass.; Catalin Corp., New York. Inner lining and padding, Arrow Mfg. Co., West New York, N. J.; Babcock Box Co., Inc., and Fuller Box Co., both of Attleboro, Mass. Tassels, Schoen Trimming & Cord Co., Inc., New York.*

TRAY is used by Coro, thereby offering a two-compartment box for re-use. Close-up shows detail of recessed hinge, which is completely covered when the padding is fitted into place.





DISPLAY

This realistic replica of an R.F.D. mail box, constructed of paperboard and lithographed in eight colors, has been adopted by Eaton Paper Corp. as a display piece for the spring promotion of its packaged writing papers. It is made in two sizes—the larger one for use in windows and the smaller for counter display. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

Northam Warren's triple-shelved, point-of-purchase merchandiser for Cutex nail polish affords full view of bottles in a compact space. Constructed of paperboard, it has an all-over lamination of cellulose acetate, which prolongs its life. Designed and manufactured by Davidson-Hansen Co., New York. Finishing and laminating (Lam-cote) by Arvey Corp., Chicago.



Twelve Di-Mol hack saw blades put out by Harry Disston & Sons, Inc., are displayed for easy selection by the customer on this three-color paperboard counter display. The selection chart at the left aids in choosing the proper type of blade, while the right panel lists five "how-to-use" instructions. In the center is a triangular patch listing prices of both the 10-in. and 12-in. sizes. Display, National Advertising Mfg. Co., Philadelphia.

This self-service floor merchandiser, for displaying any combinations of six different Lever Bros. packaged products, carries the legends: "Try these fine Lever products; buy all six; use all six." The display is constructed of sturdy printed corrugated board and fitted with three shelves, each of a different depth. The two lower shelves, being deep, have extra center supports. As an optional feature, any of the corners and straight edges of the display may be trimmed with a special metal molding that re-inforces the structure. Printing is in five colors, with blue and green predominating. Display, River Raisin Paper Co., Monroe, Mich.

GALLERY

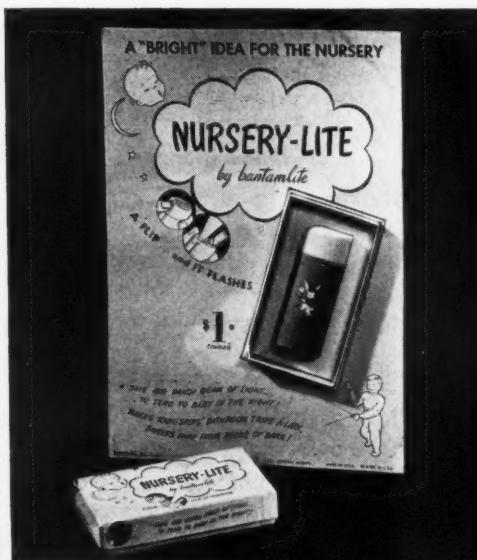
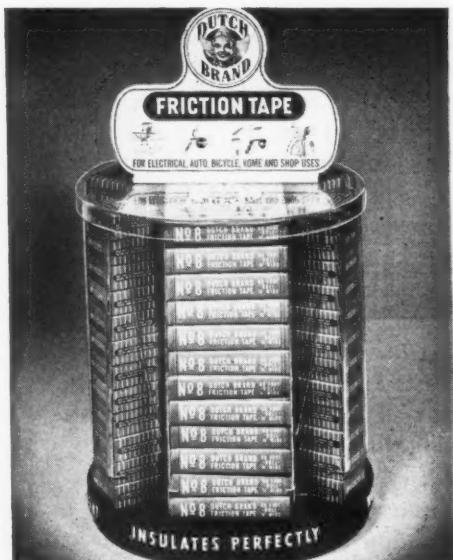


All three sizes of the new transparent acetate packages for Beardmore bath ovals are displayed in orderly fashion in this semi-circular counter unit made of paperboard and lithographed. It is of patented construction which permits the curved tiers to fold flat for shipping, is simple to set up and economical of counter space. Display, Ketterlinus Lithographic Mfg. Co., Philadelphia.



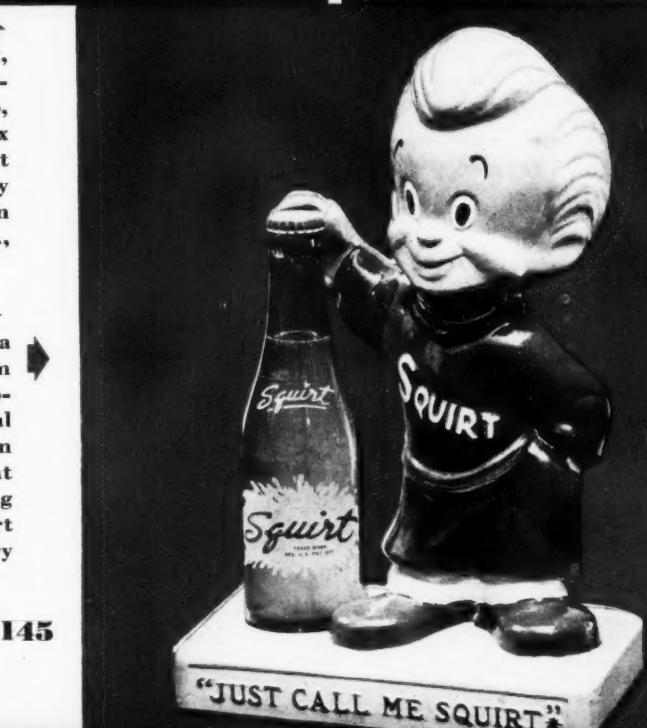
Van Cleef Bros., Chicago, has adopted this polystyrene motion display dispenser for its Dutch Brand friction tape. Constructed of plastic throughout, it revolves on a circular base to provide visibility for 72 cartons. Line drawings on top sign illustrate product uses. Plastic parts molded by Plastic Industries, Inc., Kent, Ohio. Designed and supplied by Milton Sturm & Co., Chicago.

The Totebrush dental kit with a collapsible toothbrush and dentifrice (see MODERN PACKAGING, July, 1947, p. 123) is being promoted in conjunction with national advertising by this self-service counter display carton holding a dozen kits packaged in boxes with transparent windows. Top panel, die cut and scored, folds back to form back piece. Blue and orange coloring matches that of individual cartons. Display and individual cartons, American Coating Mills, Elkhart, Ind.



An easel-back display card, die cut to hold an open box, has been adopted by Bantam-Lite, Inc., for its "Nursery-Lite," a small flash light for nursery use. To set it up, the dealer has only to slip the bottom of the set-up box inside its top and insert the opened box in the die-cut opening. Pink and blue coloring and fanciful nursery drawings decorate the display. Display, Farr Screen Processing Corp., New York. Box, W. H. Deisroth & Co., Philadelphia.

Squirt, trade character of the Squirt Co., makers of a soft drink by that name, is reproduced in statue form holding an actual bottle of the product for use as a promotion display piece. The unit is made of a special material using ceramic clays, silicon and a 20% solution of plastic resin. The statue is hollow cast, then heat treated. Bright colored lacquers are used for decorating the figurine. The unit is shipped to dealers, who insert the bottle at the point of sale. Display, Ad Art Statuary Co., Cleveland, Ohio.



REPORT from CLEVELAND

13,800 visit the 17th annual Packaging Exposition;

900 attend Conference. Full report now in preparation

The biggest and most successful Packaging Conference and Exposition ever held in the Middle West closed its five-day run on Friday, April 30, with a total attendance of 900 American Management Assn. members at the five Conference sessions and a gross registration of 13,800 at the mammoth Exposition, which filled four rooms on two levels of Cleveland's Public Auditorium.

While attendance figures in both categories were slightly under the record set a year ago in Philadelphia, they exceeded advance expectations and easily surpassed the figures for the last show staged in the Middle West area, which was in Chicago in 1944. A new rule limiting attendance at the Conference Sessions to AMA members only was in effect for the first time this year and many non-members were turned away at the door.

Exhibitors—who numbered 180 companies—reported that the Exposition was notable for the active buying interest shown. Occupying 100,000 sq. ft., the exhibits were the most extensive ever gathered under one roof.

Two unusual "clinics" at which shipping container and consumer packaging trends and developments were discussed were among the highlights of the Conference program. The shipping container session was conducted by a staff of engineers from Western Electric Co., under W. R. Hummel, and included slides as well as actual exhibits of some 70 various industrial packaging solutions by that company. During the consumer packaging clinic, conducted by a panel representing all aspects of package merchandising from the designer to the consumer, color photographs of packages in their natural sales environment were flashed on a 9-by-12-ft. screen for discussion.

At other Conference sessions, the short-term outlook for packaging materials was examined; packaging specifications were discussed; package printing processes were critically reviewed; a railroad program for reduction of damage claims was explained; warehousing was considered in relation to purchasing, production and sales; export packaging requirements were estimated; opportunities for packaging of perishable foods were summarized and the proper application of cushioning materials was detailed.

The Conference closed too late to permit the usual complete review of proceedings in this issue of **MODERN PACKAGING**, but the full report will appear next month.

The Conference was under the direction of E. A. Throckmorton, president of Container Laboratories, Inc., and AMA vice president in charge of packaging, collaborating with Henry Howlett, secretary, and the

AMA staff. The Exposition was guided by the AMA Exhibitors Advisory Council, of which Alan S. Cole, general manager of **MODERN PACKAGING**, is chairman.

It was obvious from the exhibits that, for the first time since the war, a wide range of packaging materials and exhibits is now available for packagers' selection. The packagers, for their part, appeared to be most interested in new developments that would permit economies while at the same time offering proved protection and sales appeal.

Among the exhibitors and visitors, there was much discussion of an AMA questionnaire survey which revealed a slight lessening of demand in some fields for packaging materials in recent months and at the same time a slight increase in suppliers' productive capacity, resulting in greater attention by the suppliers to their own merchandising programs.

At the same time, the majority of manufacturers who use packaging reported that they were being squeezed between the downward pressure on their prices and the continuing upward pressure of manufacturing costs. Many visitors to the Exposition and Conference frankly admitted they were shopping for improved packaging materials and methods as a means of reducing unit manufacturing costs and that they looked to more attractive packaging as a means of lowering distribution costs by increasing sales and widening markets.

Current merchandising programs for packaged products, the AMA survey revealed, frequently include complete re-evaluation of packaging in terms of new consumer preferences brought about by the economic and psychological impact of the war. Many companies reported that complete redesigning and restyling of their packages were in progress or planned to meet new consumer demands as well as to ease physical handling in the channels of distribution.

Also significant were reports from several larger concerns that the determination of why a package attracts consumers is being taken out of the realm of opinion and made the subject of exhaustive scientific analyses. Once-popular consumer panels are being superseded in many cases by psychological and physical testing of such factors as shape, color and materials, the reports revealed.

The writing of workable specifications for the purchase of packaging materials, often left to the judgment of designers or advertising agencies, is being made a responsibility of regular company personnel. This is being done to insure proper utilization of materials, as well as to guarantee maximum consumer satisfaction.

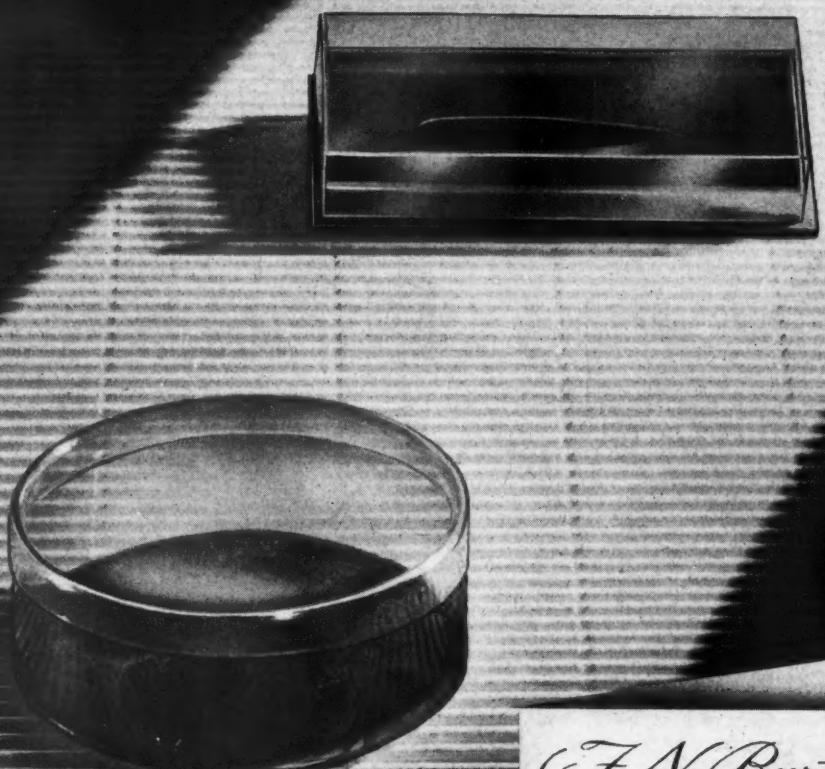
F.N. Burt

FOR PRICE

Priced for economy

Priced for quantity

Priced for sales



F.N. Burt Company Inc.

500-540 SENECA STREET, BUFFALO, N.Y.

New York City • Philadelphia • Boston • St. Louis • Atlanta • Chicago
Cleveland • Cincinnati • Los Angeles • New Orleans • Memphis
Minneapolis • Kansas City • San Francisco, California • Newark, New Jersey

CANADIAN DIVISION:

Dominion Paper Box Company Ltd., 469-483 King St. W., Toronto 2, Canada

Prepackaged Meats Now Automatically Machine Wrapped

Packers and super markets are building brand preference for their products . . . dealers are enjoying faster turn-over . . . and the public is being served better — thanks to attractive and protective machine wrapping.

These eye-catching Hunter packages, for example, are being wrapped in printed cellophane on our quickly adjustable Model FF machine. Designed especially for meats, provisions and frozen foods, the FF has a speed of up to 100 packages per minute, and registers the printed design by electric eye.

Penn Fruit Company's meat products are being wrapped on our Universal 4 machine. This machine features an exclusive SELF-MEASURING PAPER FEED which permits the continuous wrapping of products varying greatly in height. Only one hand-wheel adjustment (for length of package) is necessary. Speeds up to 55 packages per minute.

CONSULT US NOW

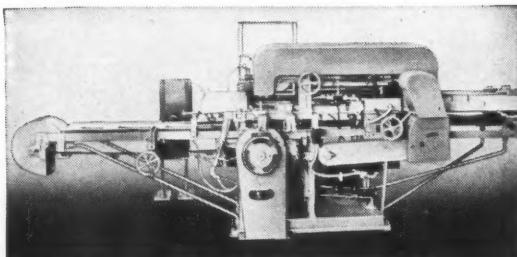
about the wrapping of meats or any other products for which you are seeking greater sales appeal or lower wrapping costs. Phone or write our nearest office.

PACKAGE MACHINERY COMPANY
Springfield 7, Massachusetts

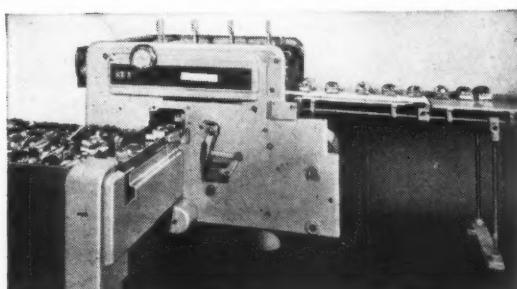
NEW YORK CHICAGO CLEVELAND ATLANTA DENVER
LOS ANGELES SAN FRANCISCO SEATTLE TORONTO



No time is lost in preparing Penn Fruit Company's meat for their mammoth show cases. Our Universal 4 machine, installed at the rear of the market, wraps one kind of meat right after another without troublesome adjustments.



MODEL FF



MODEL UNIVERSAL 4

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines



TECHNICAL

ENGINEERING • METHODS • TESTING

Charles A. Southwick Jr. • *Technical Editor*

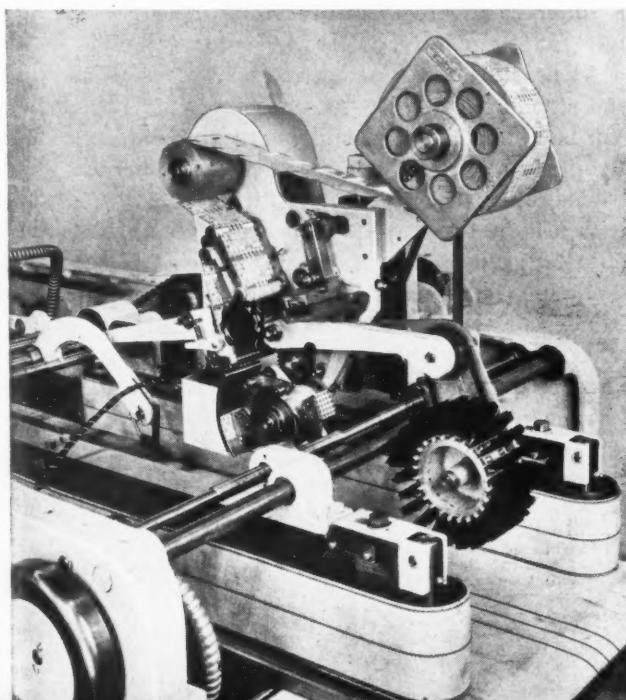
HEAT-SEAL PAPERS

Successful dry labeling or heat sealing with thermoplastic adhesives depends upon an understanding of four variables: time, temperature, pressure and the insulating properties of paper or film. The relationship of these four presents a puzzling combination which may bewilder the user unless each variable is pulled apart and examined individually.

By time, we mean the period of heat dwell during which the heat applicator is in contact with the heat-seal paper or adhesive. For example, the heat applicator on a thermoplastic box-staying machine (see Fig. 2), running at a speed of 120 boxes a minute, completes a cycle every 0.5 second. If the application is working on an effective cam of 120 deg., the actual contact between the heating element and the paper, or the heat dwell, is 0.1667 second. The heat dwell on conven-

* Sales Research Manager, Nashua Gummed & Coated Paper Co., Nashua, N.H.

I. RECENTLY DEVELOPED heat-seal labeling mechanism by Package Machinery Co. utilizes principle of direct activation through adhesive face of label, using delayed-action thermoplastic. Adhesive is heat activated on one element and applied by independent pressure applicator.



What the packager should know about thermoplastic labels. Success in their use depends upon coordination of four variable elements.

By H. W. TAYLOR*

tional heat-seal machines depends, therefore, on the design of the machine and the rate of production or output.

By temperature, we mean the effective surface temperature of the activator on the heat-sealing machine. This surface temperature will normally be lower than that shown by the temperature indicator. Surface temperature can be easily measured with a surface pyrometer.

On one automatic labeling machine, a setting of 550 deg. F. on the control panel, for example, means an effective surface temperature on the label activator of 325 deg. F.

By pressure, we mean the pressure in pounds per square inch between the applicator and the surface to which the heat-seal paper is being applied. This is difficult to measure. When pressure adjustment on the heat-seal machine is possible, it is usually desirable to apply as much pressure as the product or surface being labeled will permit. Direct application of a heat-seal label to the top of a frosted cake must, obviously, be done with minimum pressure in order not to damage the frosting. The application pressure, however, exerted by a single-service thermoplastic envelope-sealing machine may exceed 300 lbs. per sq. in.

The insulating properties of paper can best be determined by the user, on a comparative basis. This is an exceedingly important factor and one that is frequently overlooked. The difference in insulating properties between two different grades of paper of approximately the same raw weight is indicated by the following example. On a certain textile-labeling machine, two grades of paper were being tested. Both were coated

with the same amount and type of thermoplastic adhesive. One stock was a 45-lb. (25 × 38-500) uncoated sulphite sheet; the other, Nashua's standard 50-lb. coated-one-side white litho paper consisting of a 40-lb. sheet (25 × 38-500) with a 10-lb. litho coating, one side. The 50-lb. CIS white litho gave optimum adherence at a surface temperature of 410 deg. F.; the 45-lb. uncoated sulphite required an effective temperature in excess of 500 deg. F., in order to activate the adhesive properly.

Heat dwell, or heat pause, as defined above, is partially the result of machine design, partially the result of production speed. A well designed heat-sealing machine allows maximum dwell time by the elimination of unnecessary motion of the heat-pressure application. The greater the time of dwell under the heat and pressure applicator and the less the time of prior paper travel for each labeling cycle, the more efficient will be the machine.

By the use of delayed action heat-seal papers, dwell under the applicator is no longer required; the paper may be heat activated before it reaches the applicator. By divorcing this function of heating the label from the purely mechanical function of applying the label, plenty of time may be afforded for heat activation while the actual label application can be as fast as good mechanical design will permit. For example, a fully automatic bottle labeler¹ will pick up labels from the hopper at 300 labels a minute, activate five labels at a time on the heated drum and deliver completely activated labels to the applicator at a speed of 300 labels a minute. The dwell time of the label on the activator is therefore five times as long as it would be if the label passed directly from the hopper to an applicator which combined the functions of activation and application in one operation.

On heat-pressure sealing machines, the relationship between heat dwell, as governed by machine design, and heat dwell, as governed by production speed, is direct. Assuming a constant surface temperature of the activator and constant insulating property of the paper, production speeds can be increased as the period of dwell of the heat applicator, due to machine design, is prolonged.

With these machine factors in mind, let us examine the characteristics and properties required in a heat-seal paper. Temperature characteristics are of primary importance and must be properly related to the range of effective surface temperatures of the heat-seal activator on the machine you are considering. Obviously, the activation range of the thermoplastic adhesive should be consistent with the temperature range developed by the heat-seal activator. The effective activation range of heat-seal papers presently on the market varies significantly. Out of 15 different thermoplastics tested, the minimum temperature at which complete activation occurs (when paper and adhesive are at a balanced temperature) ranges from 133 deg. F. to 320 deg. F. Nashua's heat-seal papers have the

following minimum activation temperature points:

² Thermo-Kote BM-1	180 deg. F.
² Thermo-Kote CM-1	185 deg. F.
² Thermo-Stix PGM	170 deg. F.
² Thermo-Stix PA	170 deg. F.
² Thermo-Tak	240 deg. F.

The maximum application temperature point (with paper and adhesive at a balanced temperature) is that at which the adhesive becomes fluid and loses its tackiness, as indicated by label or tape slip. The temperature range of useful application may be relatively narrow. No attempt was made to measure this range except with Nashua's heat-seal papers, which are as follows:

Application range	
Thermo-Kote BM-1	50 to 200 deg. F. + } After
Thermo-Kote CM-1	50 to 200 deg. F. + } activation
Thermo-Stix PGM	170 to 205 deg. F.
Thermo-Stix PA	170 to 215 deg. F.
Thermo-Tak	240 to 340 deg. F.

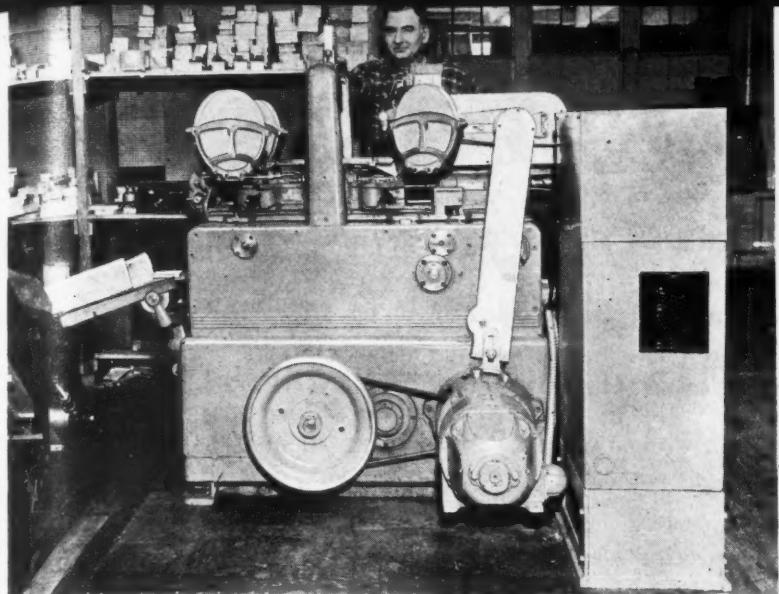
Under normal labeling or sealing conditions (except with delayed-action type papers), paper and adhesive are never at a balanced temperature. At practical production speeds, with well-designed heat-pressure sealing machines, temperature of paper may be several hundred degrees above temperature of the adhesive during the sealing cycle.

For example, as shown above, the critical temperature point of Thermo-Stix PA is 215 deg. F. However, on a bottle-hooding machine, it was necessary to develop an effective surface temperature on the heat-pressure applicator in excess of 600 deg. F., in order to activate Thermo-Stix PA on a 45-lb. kraft tape. This temperature spread is due to the insulating properties of the paper, enhanced by the very brief dwell of the heat-pressure applicator, which slides around the neck of the bottle, binding down the cellophane hood with the heat-sealing tape. In order to reach a critical adhesive point on this bottle hooder when the hooder was operating at production speed, it would have been necessary to increase the temperature of the heat-pressure applicator to a point in excess of 650 deg. F.

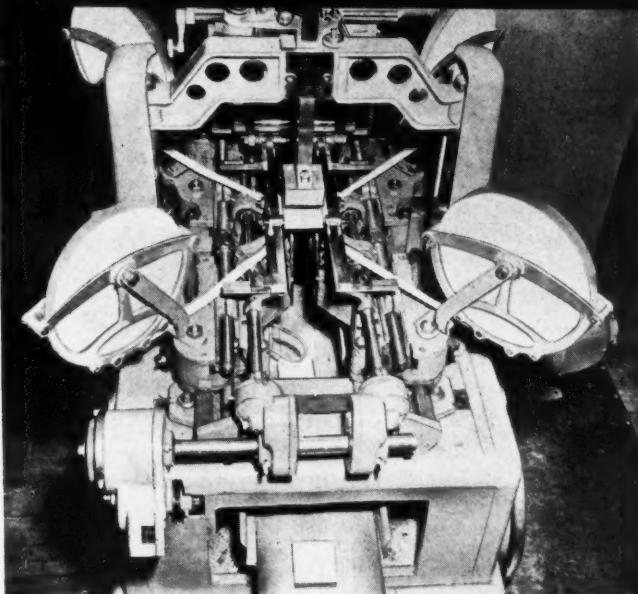
At practical machine speeds, heat-seal adhesives on the standard 50-lb. coated-one-side white litho paper can be applied without slipping at an effective surface temperature of the activator in excess of 300 deg. F.

The wider the breadth of the temperature range possessed by the heat-seal paper, the more likelihood of operating within this range. Obviously, if the heat-seal paper has a narrow range, let us say from 220 to 240 deg. F., the heat-sealing machine must always deliver an adhesive surface temperature within this range in order to produce uniform heat-sealing results. Unless the machine is well regulated by thermostatic controls, which insure a constant adhesive surface temperature within the required range, heat-sealing uniformity may be lost. It is important for the user to know not

² Patent applications pending. Trade names for Nashua's heat-seal papers as used in this article are provisional. Announcement of new trade names will be made in the near future.



2. BOX STAYER manufactured by Kingsbury-Davis, Contoocook, N. H., stays up to as many as 140 set-up boxes a minute in the Mason Box Co. plant at Attleboro Falls, Mass., applying thermoplastic stay tape simultaneously to each of four corners of box.



3. LOOKING DOWN into mechanism of Kingsbury-Davis machine, showing four rolls of thermoplastic tape fed to central element. This development is of obvious interest to the box industry.

only the minimum temperature point of the heat-seal paper he is using, but also the maximum temperature point of the paper in relation to the machine to be used and the production speed planned.

Another important temperature characteristic is the blocking point. A high blocking point combined with a relatively low minimum activation temperature point is usually desirable. This, of course, means an adhesive which passes abruptly from a tack-free coating to a completely activated, sticky adhesive. The blocking point of heat-seal adhesives presently on the market ranges from thermoplastic adhesives that are practically pressure sensitive and will block at 70 deg. F. under 10 lbs. per sq. in. pressure applied for 1 hr., to others that will not block under these test conditions until the temperature is raised to 150 deg. F. Nashua's heat-seal adhesives have the following maximum free or non-blocking points (10 lbs. per sq. in. for 1 hr.):

Thermo-Kote BM-1	125 deg. F.
Thermo-Kote CM-1	110 deg. F.
Thermo-Stix PGM	125 deg. F.
Thermo-Stix PA	110 deg. F.
Thermo-Tak	110 deg. F.

The insulating properties of heat-seal label paper or tape, as previously indicated, have a significant bearing on production speeds. The choice of a heat-seal label paper or tape is governed by a number of factors, such as printability, opacity, finish, tensile and/or bursting strength, weight, flexibility, etc. These properties are well understood by label users. It is not always possible to have all the properties normally desired in a good label paper or tape plus good heat conductivity and good heat behavior. A compromise is frequently necessary.

For example, a confectioner packaging chocolate bars in cardboard boxes wanted a stronger heat-seal label

that would seal covers to bottoms of boxes. He was experiencing trouble with his heat-seal labels because the shucking action of the boxes while being shipped in corrugated containers sheared the labels. A 45-lb. (25 × 38-500) uncoated sulphite sheet was recommended as the label stock. Unfortunately, this stock required a considerably higher surface temperature on the heat-pressure applicators in order to drive heat through the label stock and activate the adhesive during the period of heat dwell. The confectioner believed that the increase in temperature of the heating elements would soften the candy. Consequently, he decided in favor of a larger label which would activate at a lower temperature rather than a smaller label on a stronger stock that required more heat to activate.

Compromises of this nature are often required. A reduction in weight of paper or tape will usually lower the temperature required to activate the adhesive within a predetermined heat dwell. This does not always follow, however, and comparative trials on the sealing machine will conclusively prove that two different grades of paper of the same weight, but varying in density and formation, will possess radically different insulating properties.

Uniformity of adhesive coating is of extreme importance to the user. Lack of uniformity may mean poor adherence due to insufficient or excessive adhesive. Excessive fluctuations in weight of adhesive coating are difficult for the user to predetermine. If all other variables are held constant and the adhesive behavior of the labels or tape still fluctuates from good to poor, the cause is probably due to variation in weight of adhesive coating per square inch of paper. All too frequently fluctuation in surface temperature of the heating elements is the underlying cause behind erratic heat-seal label or tape behavior.

The following example will (*Continued on page 186*)

IODIZED FRUIT WRAPS

British study indicates that iodine treatment will give at least a 50% reduction in wastage, with no effect on taste or appearance of most varieties.*

By H. MANLEY, B.Sc.

One of the greatest advances in commercial fruit packing in the last decade has been the discovery of the iodized wrapper. The initial discovery was made by Dr. Tomkins (5a)† in 1934 but, owing to the restrictive food laws concerning chemical preservatives in this country, it was followed up and used in the United States, South Africa, India and Australasia with detailed experiments on bulk shipments up till the outbreak of war.

Normally, there are considerable losses of fruit in storage and transport due to the attack of fungi and molds. Since infection cannot be prevented, because the fungus spores are always present in the atmosphere, the method of attack must be to retard and as far as possible prevent the germination and growth of the

molds. Tomkins found that iodine was a most effective control. Early methods consisted in dipping the fruits and bunches in various chemical solutions such as borax, sulphite and Bordeaux mixture, or the use of gas control atmospheres. Both these techniques, even where successful, were unwieldy and generally impracticable on a commercial scale due to the high cost of the individual treatments and also the further bruising and loss of fruit due to the extra handling necessary.

Hence the need arose of some chemical or natural substance which could be impregnated in the wrappings and containers of the fruit which would be moderately volatile, definitely toxic to fungi in general and in no way detrimental to the taste, smell, appearance or ripening time of the fruit. Iodine is remarkable effective and no other substance as yet in use is so satisfactory.

The various possible techniques for using the iodine are:

1. As iodine-impregnated paper wraps. It is shown later that there is a further improvement if a second layer of an oily paper, impermeable to iodine, is wrapped outside the first impregnated layer. In small boxes such as those for tomatoes, it would seem very suitable to have a complete inner layer of iodized tissue or crepe paper and then immediately outside this a layer of oil-impregnated paper such as "crystalline" or greaseproof.

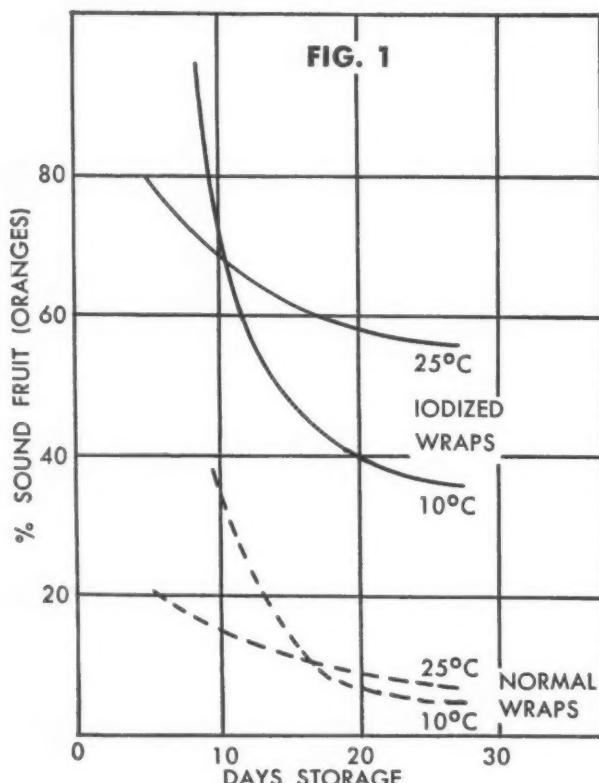
2. Wood shavings, cork dust or cotton wool impregnated with iodine. This is generally rather more effective than the single layer of iodized paper. The packing material may, however, still be discolored a pale yellow on arrival and may then be somewhat unattractive in appearance as, for example, a box of grapes with the shavings a brownish yellow color. This discoloration is generally rather slight, but in any case the saving in wastage is so great (generally two or three times) that it would often be worth while to repack. This matter would only interest the bulk wholesaler, since the retailer would almost certainly have the fruit on display and sell it away from the packing and boxes (i.e., tomatoes and grapes).

3. For egg shipments, iodine-impregnated cardboard spacers seem admirable, requiring in effect nothing new except a rather special (impregnated) cardboard.

Before considering several reports on the use of iodine it is interesting to notice the mode of action of the vapor. Thus in the case of grapes (3, 4), a typical ex-

* Reprinted by permission from *The British Packer*, London, England.
† Numbers in parentheses refer to "References" appended.

TEST ON ORANGES shows that a much higher level of protection is given by iodized wraps, with 50% of the fruit remaining in sound condition after 30-day storage period at 25 deg. C.



ample, the iodine does not seem to stop the growth of fungus already established on any individual fruit, but certainly does prevent the spread of infection even to the neighboring grapes.

The foods tested in large-scale shipments include oranges, tomatoes, grapes, melons, passion fruit, plums, peaches, cherries and eggs.

Tomkins (5) found that the delay time between packing and picking fruit, especially apples and oranges, should be as short as possible, to keep the infection, in this case chiefly Penicillium, to a minimum. In all fruits, the fungi grow naturally most readily on damaged or over-ripe fruits, generally starting from a lesion or break in the fruit surface. He found borax dips, used against citrus green rot, and storage in gas atmospheres, such as acetaldehyde, ammonia or sulphur dioxide, effective to some extent in stopping mold growth, but quite useless for large-scale commercial practice. In some cases a mineral oil was impregnated into the wrap. This was effective against apple scald and similarly copper sulphate (6) was specific against pear rot.

Iodine, however, was the most general fungicide and the most satisfactory. In the laboratory, iodine reduced the growth rate of established fungi and inhibited germination. Further, the effect was inverse as the acidity (pH value of the growth liquor of the fungus) and hence linked up directly with the ripeness of fruits, and above a concentration of about 1% iodine the law of diminishing returns applied. In practice, a large excess of iodine normally leads to surface discoloration of fruit.

Some of Tomkins' figures have been plotted as a graph (Fig. 1) showing the remarkable efficiency of iodine, in this particular case of orange storage. As is shown in the other reports, the results are typical and apply generally to most fruits.

In his report for D.S.T.R., Tomkins (5b) shows that the alterations to iodine were less effective. The natural oils used for apple wraps, such as menthol, clove and limonene, were all effective as fungicides, but damaged the fruit and were too volatile. Other chemicals tried were effective for mold control, but injured the fruits (bananas and apples) or left a characteristic smell. In the case of plums and apples, the results with iodine were not always happy. Some varieties of plums ripen abnormally when iodine is present, remaining green too long and the skin staining brown. Ripe plums were generally unaffected except for some scalding. Apples tested with infection of Penicillium were generally controlled, but again some varieties behaved badly, giving surface browning. Passion fruits and melons responded well to the treatment.

An added advantage of the iodine vapor is that it pleasantly obscured the smell of ethylene of ripening fruit without combining chemically with this gas, which would probably hasten ripening.

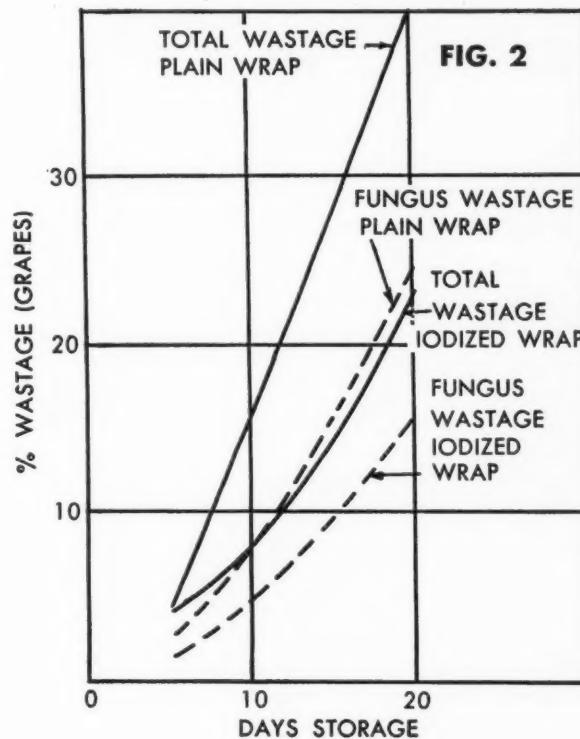
Ryall (1) showed that iodine was the best available treatment for sweet-cherry storage, although an excessive concentration of greater than 3% will spoil the normally bright surface appearance. Organic stable

iodine compounds were less effective and need care, since they were mostly strong smelling.

Rattray and Dreyer (4a, 4b, 4c) investigated very fully grape wastage in shipments from South Africa to Britain, especially of the varieties White Hanepoot and Henab Turki. Minor points which they noticed were that it was best to pick fruit in the afternoon, possibly since all dew is evaporated by then, and that the trimming of individual bad grapes from bunches made no difference to the wastage losses. Bad bunches of fruit were best eliminated at the picking station, however. They agree with Tomkins' results that iodine was the most effective substance and that the necessary and sufficient strength was about 1.5% in solution. The fungus of importance here was Botrytis which showed great variations in the strength of attack from year to year, most probably directly connected with the prevailing wet or dry weather conditions. The appearance, condition and flavor were quite unaffected and the control good. Iodine did not affect the taste of wet-drop or dry-drop fruit and impregnated cotton waste plugs were equally as effective as iodized crepe paper.

Dreyer (4b) found that for seven different grape varieties iodine gave greatly decreased wastage, 50% or less, but not complete control. Waste wool and wood shavings were better than a single paper wrap, but still showed a slightly yellow color on arrival which was not always readily noticeable. The iodized paper wrap was equally effective when (*Continued on page 204*)

TOTAL WASTAGE of grapes in plain wrap was about twice that of grapes in the iodized wrap.



Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Packaging medical supplies for tropics

QUESTION: We are interested in packaging medical products for tropical shipment. Can you suggest plastic packages which would be equal to glass containers with closures dipped in wax? We are also interested in packaging a sterile dressing for export.

ANSWER: There does not appear to have been a great deal written about the problems and methods of packaging different kinds of medical supplies for export to tropical areas. During the war there were many specifications developed for the packing and packaging of medical supplies, but the requirements and performances were much more severe than is necessary for normal commercial needs. However, plastic packages are in general not sufficiently moistureproof for protecting your products at elevated temperatures and humidities for long periods.

The glass bottle with a suitable closure and a durable label is ideal for many products. A metal can of proper construction and with a good closure is also very well suited for dry products, bandages, etc.

You might find that certain combinations of plastic film and metal foil, well heat sealed in pouch or flat-envelope form, would give good unit packaging for your sterile dressing. Multiples of such units could be packed in a reclosable metal can and would give excellent protection up to the moment of use.

Synthetic resin coatings for glassine

QUESTION: We are interested in a synthetic resin to improve the functioning of glassine paper. We would like to know about the different resins used and especially about the use of alkyd-urea resin. We would also like to know about publications dealing with the identification of synthetic resins used on paper.

ANSWER: There are a great many different kinds and combinations of resins used in coating glassine paper to improve its transparency, to make it heat sealing and to develop moistureproofness and other qualities. Any one of these properties may be imparted to glassine independently of any other, depending on the properties of the resin and the formulation of the solutions for lacquering and coating. However, alkyd-urea resins are not used for this purpose, since they require a time and temperature cycle of processing which is too severe

for glassine. The most commonly used resins for this purpose are nitrocellulose, cellulose acetate, ethyl cellulose, various resins based on rubber and also vinyl polymers. The final choice of resin or resins will depend upon a great many factors, the most important being function, cost and coating equipment.

Resins, whether they are used as paper coatings or alone, can be identified by techniques developed by the plastics industry. It is suggested that you contact various resin or plastics manufacturers for more detailed information.

Testing of collapsible tubes

QUESTION: As users of collapsible tubes, we are interested in a method of testing the stability and resistance of the tube, inks and coatings to many of our new products. We have many new mixtures and compositions, some of which could be packaged in metal tubes, but we do not want to wait for a long field trial to know the definite answers.

ANSWER: The answer to your problem is an adaptation of the method described in the article, "Testing Collapsible Tubes," MODERN PACKAGING, Feb., 1948, p. 148. This test was developed by a large user who was concerned with the mechanical durability and stability of the coatings and inks. With certain modifications, this test method could give you reliable answers based upon rapid laboratory techniques.

It is suggested that you use the crushing, storage and evaluation techniques, but that you eliminate the 1% soap-immersion test unless you feel that it applies to your tubes in use. You should use a similar test set-up, but in place of a 1% soap solution you should use your product. Those of your products which have an aqueous base should be diluted by an equal volume of water and tested at room temperature (70 deg. F.). Those having an oily or greasy base should be used without modification, but should be tested at 140 deg. F. You should examine the samples in 24 hrs. by removing the test solutions and inspecting the coatings for softening, the inks for bleeding or color change, and the metal (on the inside) for corrosion, particularly at the liquid-air line. If the sample tubes are satisfactory, the test should be continued for a total time of one week.

You can be sure that coating and ink formulations or metals which pass this test will give good results under service conditions.

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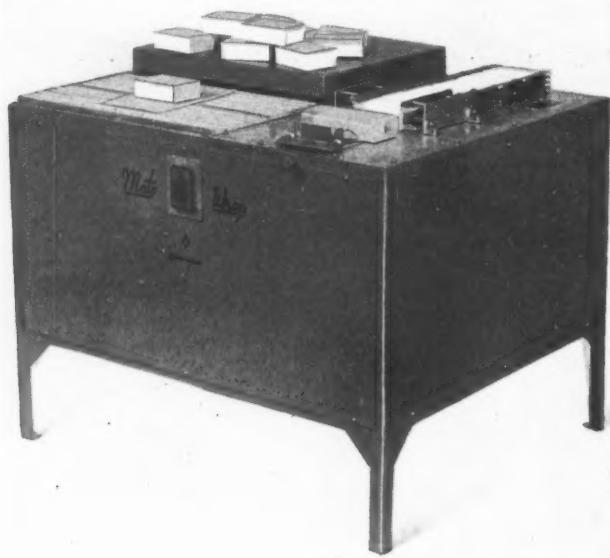




Equipment and Materials

SEMI-AUTOMATIC WRAPPING MACHINE

Knapp Mfg. Co., Los Angeles, announces the availability of a semi-automatic wrapping machine that produces a taut, neat wrap having envelope-type folded ends at speeds up to



1,200 per hr. This "Mato-Wrap" machine has several noteworthy features, among which are a sheeting device for cutting and feeding individual sheets to the operator. When cut from the roll, the single sheets are automatically fed onto a corrugated pick-up table by means of a standard paper-feed head acting as a sheeter. The operator simply draws the sheet around the package and passes it on to the feeding device. There is no need to start the fold manually.

SPECIAL HEAT-SEAL PAPERS

Minerva Wax Paper Co., Minerva, Ohio, in cooperation with General Mills' Mechanical Division, Minneapolis, Minn., has made available a special line of heat-seal coated papers to be used with the latter company's new "Uni-Pak" machine (see MODERN PACKAGING, April, 1948, p. 152). These papers are said to have high resistance to water vapor, odors, etc.

Covering a wide variety of types, these papers include sheets of high wet strength, high finish lithos, laminated foil and glassine. They were developed to meet the requirements of individual packaging of a wide assortment of products such as sugar, coffee, flour, dry yeast and other products that can be handled on these versatile unit packaging machines.

SPONGE RUBBER BOX LINER

"Spon," a new non-flammable sponge rubber, has been developed by The Commonwealth Engineering Co., Dayton, Ohio. The new compound, in addition to its flameproof characteristics, is said to be very tough, highly resilient, yet soft to the touch, giving a deep cushioning effect even in thin sections. Vulcanized to fibreboard and boxboard, the new material constitutes a low-cost protective lining for cartons

used in the shipment of such fragile products as glass, instruments and others requiring protection in shipment.

NEW VINYL DECORATIVE COATING

A new economical vinyl resin coating combining flame-resistant qualities with exceptional abrasion and weathering characteristics has been announced by Monsanto Chemical Co., Everett, Mass. The new product, named Ultrasol, when applied to paper or fabric is said to give either a smooth, colorful finish or a decorative leather-like effect.

EASY-STACKING FLOUR BAG

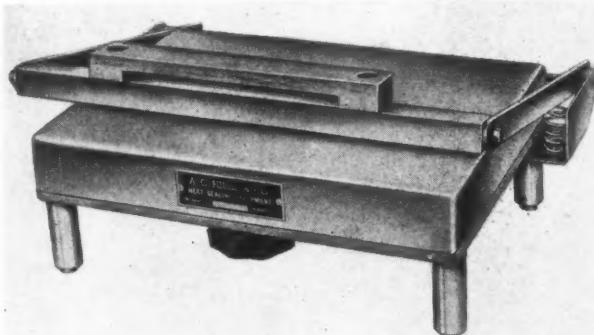
Arkell & Smiths, Canajoharie, N. Y., has announced the introduction of the Sta-Stak flour bag for use by the flour and milling trades. This bag, it is claimed, will not shift when stacked, will not slide off loads or trucks and is easier to handle than the ordinary multiwall bag. Two types are available—the 100-lb. open-mouth style and the 100-lb. tuck-in-sleeve-valve style. Another advantage claimed for this bag is that the flour will pour clean and that no residue remains in the bag.

IMPROVED STENCIL INK

Diagraph-Bradley Industries, Inc., St. Louis, Mo., announces the development of a new formula for all colors of its Brit-Mark stencil ink. After extensive tests, the makers claim, this new formula provides greater covering qualities so that markings stand out clearly and neatly upon a surface of contrasting color. It is said to offer greater durability against all weather elements and to be impervious to gasoline or other lubricating oils after the ink has dried.

BAG-SEALING ATTACHMENT FOR HOT PLATES

A. C. Hills & Co., Newark, N. J., announce a new bag-sealing attachment for their package-sealing hot plates. This attachment, mounted on their standard leg-type hot plate,



seals the ends of bags made of cellophane and other heat-sealable materials.

The end of the bag to be sealed is placed between the sealing bar and the hot plate and the bar is pressed down to effect the seal. Springs return the bar to open position. No additional



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Equipment and Materials (Continued)

heating elements are required, those in the hot plate being ample for all ordinary sealing. When not required for sealing bags, the sealing bar can be thrown back, leaving the hot plate accessible for other sealing operations.

FLUORESCENT ACRYLIC IS SELF-ILLUMINATING

A new form of acrylic plastic, called Daylight Fluorescent Plexiglas, has been introduced by Rohm & Haas Co., Philadelphia. The material is best described as having "built-in



edge lighting," since exposure of the plastic to daylight or normal room illumination is said to result in edge-lighted effects ordinarily obtained by directing light into the edge of acrylic material. Decorative panels with edges and surface designs made of the material glow brilliantly under their own power. The accompanying photograph shows a fountain display, one of the first to be made of this new fluorescent material, by the Steiner Plastics Mfg. Co., Long Island City, N. Y., for the Pepsi-Cola Co.

PRE-FORMED CAPS FOR DAIRY USE

The new Dacro pre-formed caps made by The Crown Cork & Seal Co., Baltimore, Md., retain all the features of the original Dacro in providing a high degree of protection in dairy packaging and in addition offer more economical operation than the previous caps, the manufacturers claim.

The steel preformed caps are said to feed faster, crimp on the bottle easily and smoothly with less wear on capping heads and less power is needed in the capping operation.

Because it is a cover cap as well as a seal, it affords milk the same positive protection enjoyed by other glass-packed foods. When applied to the bottle, it locks in place securely, making an airtight seal. The pre-formed caps are applied in a single capping operation by a capping mechanism which fits right on the filler, similar to those used by beverage bottlers in their high speed opera-



Announcement

OSCAR TRILSCH COMPANY

*announces the removal
of its New York office
and showroom to new
enlarged quarters at
366 FIFTH AVENUE
NEW YORK CITY 1
New telephone LONGACRE 4-3328*

★ We invite you to visit us and see our complete line of JEWELRY AND PERFUMERY BOXES

Factory:
150-25 18th AVENUE • WHITESTONE, N. Y. • FLUSHING 9-2365



The MASON MAILMASTER...



THE **Mason** BOX COMPANY

MAIN OFFICE
ATTLEBORO FALLS, MASS.

NEW YORK OFFICE
175 FIFTH AVE.

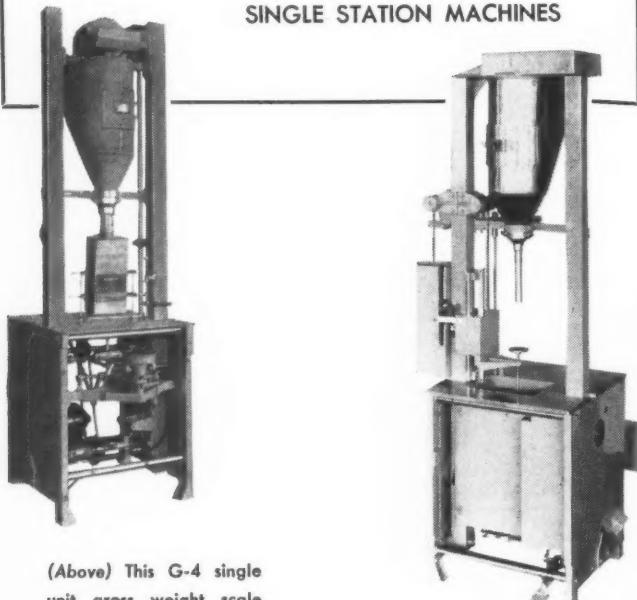
FACTORIES: ATTLEBORO FALLS AND TAUNTON, MASS.

MANUFACTURERS OF A COMPLETE LINE OF SET-UP BOXES

PACKING FILLING MACHINES for Bags • Cans • Boxes

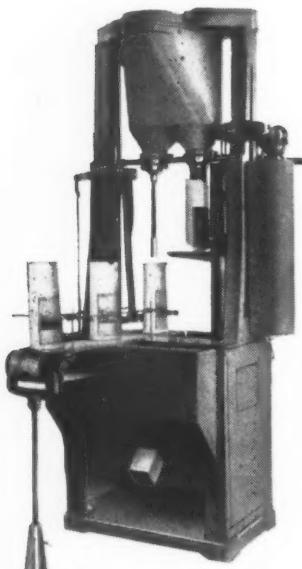
POWDERED AND GRANULATED PRODUCTS

SINGLE STATION MACHINES



(Above) This G-4 single unit gross weight scale fills by auger feeding the product into the container until desired weight is obtained. One operator . . . production 6 to 10 per minute.

(Above) This G-9 single unit machine fills by auger feeding the product into the container—packing with a desired amount of pressure from the bottom to the top. This machine can also be used for filling paste products.



DHG-88 DUPLEX PACKER AND WEIGHER

STOKES & SMITH CO.
Packaging Machinery Paper Bag Machinery
FRANKFORD, PHILADELPHIA 24, PA., U.S.A.

Equipment and Materials

(Continued)

tions. No plug caps are needed. This closure is a cover cap and seal all in one. It is easily and quickly removed with the special opener provided.

These caps are used on bottles made especially for this closure—the stubby or square type with short neck and no inside cap seat. Made of steel in 45- and 38-mm. sizes, they are said to provide a tamperproof, no-seepage seal which cannot be dislodged or damaged by rough or careless handling.

DRAWING, EMBOSsing AND JACKETING PRESS

Specifically designed to meet the production needs of fabricators of rigid transparent sheeting into cylindrical plastic containers up to 4 in. in diameter, is the Model No. 129 air-powered press by Taber Instrument Corp., North Tonawanda, N. Y. The press has a fully adjustable automatic drawing cycle with electronic timing and dual heat control.

The standard machine provides for hand feed of circular sheets, but automatic operation from roll stock can be furnished for the same press. It is actuated by two push buttons on the table surface. The machine will draw matching containers and covers from printed or plain cellulose acetate, ethyl cellulose or similar thermoplastic material in gauges from 0.005 to 0.020 in. in thickness from either sheet, roll or die-cut blanks.

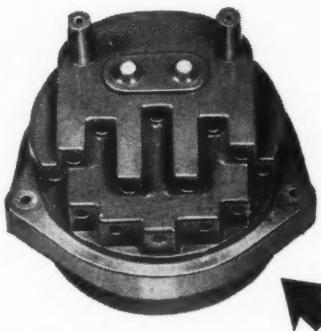
FLOWING GLUE FOR AUTOMATIC CASE SEALERS

Paisley Products, Inc., Chicago, announces that it is now in production on a new shipping case-sealing adhesive designed especially for automatic case-sealing machines. Designated as "Boxseal" glue, it is described as a liquid converted starch-derived adhesive. Its makers point out that unlike ordinary starch-derived adhesives, it remains in a fluid condition indefinitely, permitting it to be piped from an overhead reservoir or from the floor above directly to the four glue pans in an automatic case sealer without danger that it will solidify in the pipes. Dilution of the glue is dependent on the porosity of the containerboard in use, ranging from 15 to 50% by volume, and a setting speed range of 20 to 60 seconds.

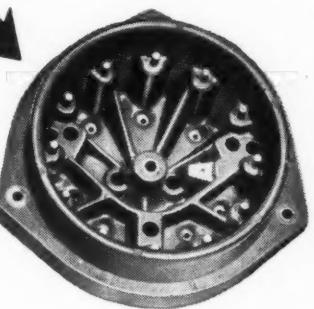
PEELABLE LABELS

The Label-Rite Co., Toronto, Canada, is offering gummed labels which peel off easily and cleanly from non-porous surfaces such as glass, metal and plastics. Known as the "Peel-Off" label, this product is being used by pharmaceutical manufacturers for labeling their products so that they are readily identifiable and yet easily converted to a prescription item by the druggist who may replace it with his own prescription-type label. They are applied like any ordinary gummed label, just moisten and apply. When dry, the labels will readily peel off.

mack MOLDS FOR THE LEADERS—



Distributor head molded by Mack for Scintilla Magneto Division of Bendix Aviation Corporation. A critical part of the "1710" twelve cylinder Allison engines powering the famous Mustang and P-38 fighting planes.



Write for 12-page Booklet G describing the complete Mack facilities—no obligation.

Insure your plastic molding jobs with **MACK** experience!



DESIGN



MOLD MAKING



MOLDING

Letting MACK figure it in plastics is good business, anytime. At MACK you receive the full benefit of experience that goes back to the early days of the plastics industry. If, on examination of your problem, we feel that the use of plastics is not the proper method, our engineers will so advise you. MACK means sound planning from choice of material and mold design to finishing. That's why a finished job from MACK will pay its way—every time!

WAYNE,
NEW JERSEY
ARLINGTON,
VERMONT
WATERLOO,
P.Q., CANADA

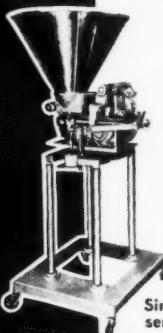
Mack
**MOLDED
EXCELLENCE**



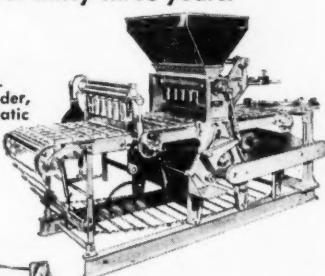
GEYER
SINCE 1914

"WE'VE

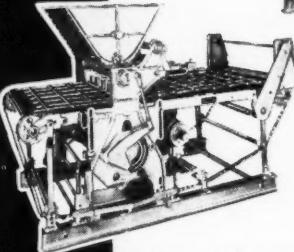
PACKED
THEM IN
FOR YEARS."



Model B.
Single-cylinder,
semi-automatic



Six cylinder filling machine with jar cleaning device.



Six cylinder pre-sieve and jelly filling machine.

Fillers are straight line multiple cylinders . . . Designed for CLEAN CUT OFF FILLING for products that seek their own level . . . BOTTOM UP FILLING for semi-solids . . . No drip . . . Clean Filling . . . Entirely automatic . . . Readily adjustable to any size or shape container . . . Maximum production output.

YOUR NEEDS

Tell us what product you want to fill and the speed required.

THE MOST PROMINENT FOOD PACKERS USE GEYER FILLING MACHINES

JAMS	CHEESE	GREASE	PEANUT BUTTER
SYRUP	GLUE	LACQUER	APPLE BUTTER
JELLIES	PASTE	MAYONNAISE	VANISHING CREAM

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FILLER MACHINE CO.
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making a good impression

What are the properties of a good printing ink? smooth flow? uniform color value? stability under varying weather conditions? versatility? All of these and more. That is why discriminating printers of packaging containers, labels, food and box wraps choose Driscoll's Coverwell Inks. They know that the millionth impression, as well as the first, will make a good impression—will help sell more of the product contained within.

MARTIN DRISCOLL & CO.

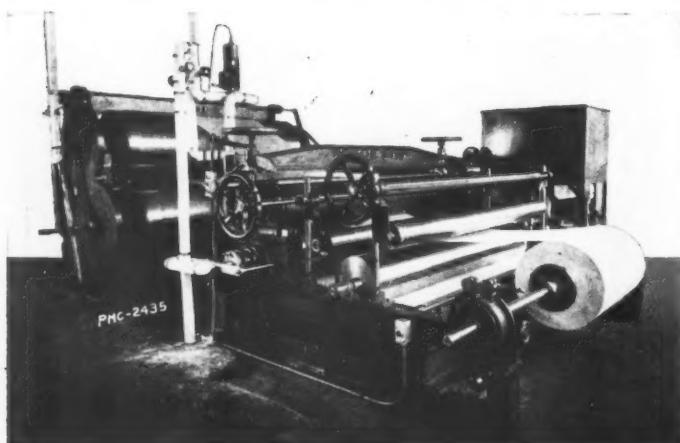
510 FEDERAL STREET, CHICAGO 5, ILL.

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Affiliated Concern: Great Western Printing Ink Co., Portland, Ore.



DRISCOLL
COVERWELL INKS
FOR EVERY
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FOR
HIGH - SPEED
PAPER WAXING

POTDEVIN PAPER WAXING MACHINES

POTDEVIN Waxers are used the world over for diversified types of waxing and impregnating. Featuring sturdy main frames, extra heavy squeeze rollers, ball and roller bearings, and large finishing rollers for longer web cooling contact, POTDEVIN Waxers are ready for full-speed, continuous, trouble-free waxed paper production.

Three basic widths, 48", 60", and 76" comprise the regular POTDEVIN Wax Machine line. No trim necessary, each machine waxes the full web width. Write for further information.

Best by test — POTDEVIN

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EST. 1893
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Daring!
Dramatic!
Different!

RUBNER'S *Lace* Jewel CLOTH

Use this strikingly different package material to create your finest, most successful package....to provide dramatic, eye-compelling sales appeal for favored products.

This regal, glittering fabric can be stitched as well as glued. Hence its usefulness is much greater than that of decorative papers.

You can use it in combination with almost any packaging material. Employ it as a box-lining or box wrapper or in small pieces for decorative purposes...quilt it, pleat it, applique it...sew it into bags or pouches.

Lace Jewel Cloth is available for immediate delivery in 35 to 36 yard rolls in widths of 25" and 36".

*Write now for a Lace
Jewel Cloth sample book.*



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Plants and People

Arlington Kunsman, formerly assistant manager of the Cellophane Division of **E. I. du Pont de Nemours & Co., Inc.**, Wilmington, Del., has been appointed manager of

that division. He succeeds **Thomas L. Hines**, who has retired from the post after 33 years of service with Du Pont. Named assistant manager of the Cellophane Division, to replace Mr. Kunsman, is **J. Edward Dean**.



A. Kunsman



J. E. Dean

Site for a new, modern box plant has been purchased by the **St. Joe Paper Co.**, Houston, Texas. The new plant will have approximately 150,000 sq. ft. of floor space, with capacity for converting approximately 3,000 tons of linerboard monthly.

A. F. G. Raikes has been appointed assistant director of sales in the St. Louis general offices of **Bemis Bro. Bag Co.**. Mr. Raikes joined Bemis in 1938.

Winners in the annual carton-design contest sponsored by **Gordon Cartons, Inc.**, at the Maryland Art Institute in Baltimore are **Jack Riggan**, 19-year-old winner of the first prize; **Eleanor Morgan** and **Charles J. Emmert**, second and third prize winners, respectively. More than 60 entries were judged and nine cash awards were made.

Saul Nesbitt, package designer, announces the opening of his own design offices at 253 E. 62nd St., New York. He will specialize in packaging and trademark design. Mr. Nesbitt was formerly with J. Gordon Lippincott & Co. and Raymond Loewy Associates.

Edwin S. Werden has been made district sales manager of the New York territory of **United Board & Carton Corp.** He was formerly with the Empire Box Corp.

W. Lane Witt, president of **National Industrial Advertisers Assn.**, has resigned to become president of **Sales-Aids**, a cooperative market research organization for industrial marketers.

Stein, Hall & Co., adhesives manufacturers New York, have appointed **Joseph T. O'Neill** as their sales representative for Texas. He will make his headquarters at 413 Pere Marquette Bldg., New Orleans, La.

Ralph G. Luff was elected president of the **National Paper Trade Assn.** last month at its annual convention in New York to succeed **Arthur W. Towne** of **Blake, Moffitt & Towne**, San Francisco. Mr. Luff is president of the **D. L. Ward Co.**, Philadelphia, and has been senior vice president in charge of the wrapping-paper division of the association for the past two years.

Dr. Frederick Matthews has been appointed director of research for the Merrimac Division of **Monsanto Chemical Co.** Dr. Matthews succeeds **W. S. Wilson**, who will now

devote his full time to special research projects in the paper chemical industry.

T. H. Mittendorf has resigned as vice president in charge of sales for **The Gummed Products Co.**, Troy, Ohio.

Lt. Col. Joseph S. Kujawski has been assigned to the staff of the **Quartermaster Food & Container Institute** for the Armed Forces, Chicago, as officer in charge of the Military Research Office.

New address of the Atlanta, Ga., office for **Package Machinery Co.** is 1222 Peachtree St., N. E.

Joseph C. Clark, director of sales, **Kupfer Bros. Co.**, New York, paper manufacturers, has been elected vice president of the corporation. **Dr. Werner Kaufmann** continues as president, **Fred Stanton** as vice president and **Abr. Halpern** as treasurer.

E. J. Cady & Co., manufacturer of paper testing instruments, is now located at 134 N. La Salle St., Chicago.

F. R. Doherty's appointment as territorial sales manager of **United Board & Carton Corp.**, New York, has been announced. Mr. Doherty was formerly with Sutherland Paper Co. **William O. Semple**, formerly with Sutherland, also has been appointed district sales manager for the New England territory of United.

The following personnel transfers have been announced by the Creped Wadding Division, **Kimberly-Clark Corp.**, Neenah, Wis.: **Robert L. Schell** from sales representative for creped wadding to sales representative for folded tissue strips, Chicago office; **Arthur A. Devlin** from sales representative, insulation, Albany, N. Y., office to folded tissue strips representative, New York City; **Robert N. DeWilde** from folded tissue strips, Neenah, Wis., to creped wadding, San Francisco.

Shoup-Owens, Inc., Hoboken, N. J., have purchased the machinery, equipment and other assets of **Leigh, Inc.**, Hackensack, N. J., under the Bulk Sales Act for use by the **Karl Voss Corp.**, division of Shoup-Owens. Their present operations in Hackensack will, by the acquisition of the Leigh company equipment, provide an increase in production of their hand-made boxes for use by the toilet goods industry. General offices of the firm will remain at 1100 Adams St., Hoboken.

William H. Heins announces the purchase of **Steelfiber Drum Mfg. Co.**, Chester, Pa. Equipment for making the fibre drums is being moved to 2235 N. American St., Philadelphia. This is also the address of the **Allied Barrel Sales Corp.**, but the two companies will be operated separately. Associated with Mr. Heins are **Robert W. D. Heins** and **George Culbertson**. **Albert H. Knabb**, formerly manager and part owner of Steelfiber, has terminated his container interests, but will enter the wood-products business in Chester.

H. I. Phillips has resigned from the **Shellmar Products**





H & D BOXES

MADE
TO
PROTECT

STYLED
TO SELL

This corrugated package will deliver its contents from the manufacturer to consumer without repacking in perfect condition and will be attractively displayed at point of sale. In the home, it will provide clean, durable storage for many years to come. Here is a typical example of how an H & D box can make a good product better. Consult the Hinde & Dauch Package Laboratory on ALL packaging problems.



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MONTREAL, QUEBEC • RICHMOND 12, VA. • ST. LOUIS 15, MO.
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WAXES

For paper board impregnation



FOR DIP COATINGS
EMULSIFIED WAXES
COATING WAXES

Meet Army and Navy specifications

WAXES FOR FUNGUS PROOFING

Our laboratory will welcome your problems

Zophar Mills, Inc. has been known
for its dependable service and uni-
formity of product since 1846.

ZOPHAR MILLS, Inc.

Established 1846

106-26th Street • Brooklyn 32, New York

Plants and People

(Continued)

Corp., Mt. Vernon, Ohio. He had been Eastern Division sales manager with offices in New York City.

Frank G. Swain, previously field sales manager of the packaging division of The Dobeckmun Co., Cleveland, converters, printers and laminators of films and foil, has been appointed plant manager. Mr. Swain has been with Dobeckmun since 1930.



F. G. Swain

J. K. Lockridge has been promoted to the position of plant superintendent at Shellmar Products Corp., Mt. Vernon, Ohio, to succeed J. R. Lawler, who has resigned. Mr. Lockridge had been director of mechanical research and development for Shellmar.

George E. DuCharme, formerly with Continental Can Co., has been appointed can industry manager for Reynolds Metals Co., Richmond, Va. He will make his headquarters in the Reynolds' New York office.

Island Equipment Corp., manufacturers of conveying equipment, are moving into a new plant at 27-01 Bridge Plaza North, Long Island City, N. Y. Both sales and manufacturing offices may be reached at this new address.

Dr. Ray P. Dinsmore, vice president in charge of research for The Goodyear Tire & Rubber Co., Akron, Ohio, will be the recipient of the 1947 presentation of the Colwyn Gold Medal, awarded yearly for conspicuous service of a scientific or technical character in the rubber industry. The medal, given by the late Rt. Hon. Lord Colwyn, former president of the Institution of the Rubber Industry, will be awarded to Dr. Dinsmore in London on June 25. He was chosen on the basis of his work in synthetic rubber research, development and application to product.

Herbert C. Piel and **Donald D. Pascal** have been elected vice presidents of National Starch Products, Inc., New York. Mr. Piel, who has been associated with the company and its predecessor firm since 1907, will continue to make his headquarters at Indianapolis. Mr. Pascal joined the company in 1929 and has been technical director and assistant vice president since 1946.

F. J. Stokes, founder and president of the F. J. Stokes Machine Co., Philadelphia, has become chairman of the board and is succeeded in the presidency by **Francis Dougherty, Jr.**, who was secretary-treasurer.

Harley F. Drews has joined the sales staff of Arrow Brands, Inc., suppliers of packaging material, Los Angeles. His territory will cover Northern California, Colorado and Utah.

James G. Witte, formerly director of packaging activities for Montgomery, Ward & Co., has resigned to form the Witte Co., packaging consultants, with offices at 20 E. Jackson Blvd., Chicago. Mr. Witte is president of the Illinois division of the Industrial Packaging Engineers Assn. and a member of its national directorate.

Robert B. LeRoy has been transferred from the Bemis Bag Co.'s plant at East Pepperell, Mass., to the general production department in St. Louis, where he will con-

CAMBRIDGE PAPER BOX CO.
196 BROADWAY
CAMBRIDGE 39, MASS.
NEW YORK CITY PROVIDENCE, R. I.

PACKAGING
ANALYSIS DESIGN
PRODUCTION

**"SET UP", ROUND,
FOLDING BOXES**

DISPLAYS

LABELS

FOIL STAMPING

DIE CUTTING

PLASTICS

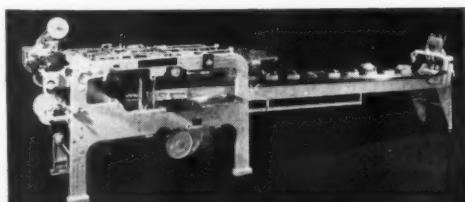
ALLIED PRODUCTS

Textiles

... the best packages for your dollar are produced on the "Oliver"



THREE well-known mills recently installed "Olivers" to package shorts, shirts, sheets, pillow cases, and towels. In each case the "Oliver" was chosen for two reasons. It turns out smart, strong packages in a variety of sizes. It packages goods at the lowest unit cost. "Oliver" machines give you hour-after-hour production without costly delays. Only "Oliver" offers you the automatic Roll-Type Labelling and Label Imprinting system—pays for itself quickly. If you are considering packaging these or similar products, investigate the "Oliver."



Made in 7 different size ranges. Infeed conveyors 6, 9, 12, 15 ft. long. Automatic Cardboard Folder and Feeder. Electric eye registration of printed wrappers. Easy to operate.

"Oliver" Wrapping Machines

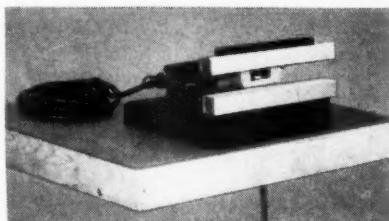
WITH AUTOMATIC ROLL-TYPE
LABELLING SYSTEM

OLIVER MACHINERY COMPANY, GRAND RAPIDS 2, MICH.

MAY 1948

CONVERTERS and JOBBERS

Here's the Modern Way to
Heat-Seal Plastic Film at
Low Cost . . .



AIR TIGHT
LIQUID TIGHT
MOISTURE
TIGHT

With the Foot-Operated **CRIMPMASTER**

Model "B" Heat Sealer

- For Extensive Sealing Operations
- Operates on 110 volt A.C. or D.C.
- Approved by Underwriters Laboratory

\$59.50

RETAIL PRICE

or with the Hand-Operated

CLAMCO

Heat Sealer

- For Home or Commercial Use
- Operates on 115 volt, 60-cycle A.C.
- Approved by Underwriters Laboratory

\$7.95 RETAIL
PRICE



OUR heat sealers give complete satisfaction when used on Cellophane, Goodyear Pliofilm, Polythene Sheeting and all other types of heat-sealing films, foils and papers. We invite your inquiry and will gladly extend further information and details about our heat sealing equipment. Send in the coupon below—Today!

CLEVELAND LATHE & MACHINE CO.

Leaders in Lower-Price Heat Sealing Equipment Since 1936
676 Broadway Cleveland 15, Ohio

Send me more information on () CRIMPMASTER Model "B" Heat Sealer () CLAMCO Heat Sealer; () Converters' Discounts; () Jobbers' Discounts

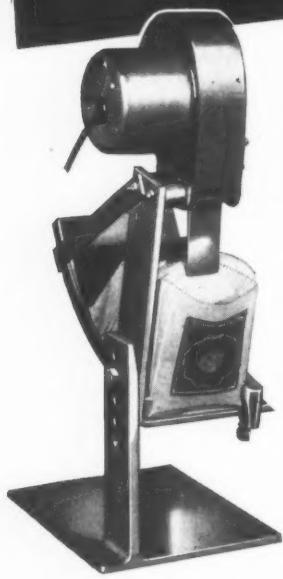
FIRM _____

MY NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

FASTER PACKAGING WITH THIS PORTABLE BAGGER

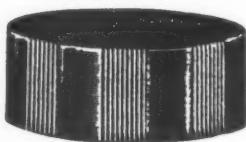


Send today for
Bulletin No. 5-29

ANDERSON BROS. MFG. CO., ROCKFORD, ILLINOIS



PLASTIC CAPS



- FOR BOTTLES
- FOR CANS
- FOR TUBES

ALL STANDARD SIZES AND COLORS AVAILABLE
FROM STOCK

VOLUME PRODUCERS OF ALL SMALL THERMO-SETTING
PLASTIC PARTS

LET US QUOTE ON YOUR CUSTOM CLOSURE,
INHALER, OR ELECTRICAL MOLDING



WARREN PLASTICS CORPORATION
1900 Irvine Street
WARREN, PENNSYLVANIA

Canadian Plant: World Plastic Corp., Ltd., Hamilton Ont.
New York Office: Jesselson Sales Company Inc., 347 Fifth Ave.

Plants and People (Continued)

tinue and expand his research and testing work on paper bags.

Robert W. Proom has opened his own packaging service at 130 W. 42nd St., New York. Mr. Proom was formerly with Shoup-Owens, Inc., Hoboken, N. J. His new service will include all phases from the creative idea to the completed package, specializing in set-up boxes, folding boxes and fibre containers.

Paul Reilly of England has joined the British Council of Industrial Design as public relations officer in charge of promotion and publicity. Mr. Reilly was associated with the National Trade Press in 1946 as plastics editor and carried out for them a six months' survey of the American plastics industry.

National Waterproof Papers, Inc., is the new name of the firm formerly known as National Waterproofing Co. Offices of the corporation will remain in Camden, N. J.

Robert M. Brosious of the J. B. Products Co., Chicago, has been appointed representative in the Chicago area for the Steiner Plastics Mfg. Co., Inc., Long Island City, N. Y., fabricators of acrylic resin.

Arabol Mfg. Co. adhesives manufacturers, New York, have completed arrangements with Atlanta Service Warehouse, Atlanta, Ga., to augment facilities for the storage of their adhesive products in that area. **Frank J. Michael** is Arabol's Atlanta representative.

Avery Adhesive Label Corp., producer of self-adhesive labels and tape, is consolidating all of its operations at the recently completed plant in Monrovia, Calif. The new plant, located at 1616 S. California St., will house the company's factory and general sales offices. The new postal address is Box 371, Monrovia, Calif.

Erwin Reveri has been appointed production superintendent of **Plastics Productions, Inc.**, New Orleans, La., fabricator of acrylic packages and displays.

Payne & Craig Corp., New York, announces the appointment of **William M. Kemp Co.**, 420 Market St., San Francisco, to handle California sales to the letterpress and carton industries of the company's Craig Dri-Spray and Dri-Spray powder, used by printers and lithographers to eliminate off-set in printing.

The Camp-Betner Corp., Richmond, Va., has been appointed by the **Stocker Mfg. Co.**, Netcong, N. J., manufacturer of gummed tape and converted paper specialties, as exclusive sales agent in Maryland, Virginia and the District of Columbia. Both Camp-Betner and Stocker are affiliates of the **Camp Mfg. Co., Inc.**, of Franklin, Va. **George Wilson**, formerly with C. Wilson Wood Co., Baltimore, Md., will be Camp-Betner's special representative for the Stocker line. Camp-Betner, which will continue its close sales coordination with the **Benj. C. Betner Co.** of Devon, Pa., is a manufacturer of protective packaging.

John H. Hellweg has been elected vice president in charge of manufacturing of **The Ottawa River Paper Co.**, Toledo, Ohio. Mr. Hellweg joined the company in 1946 and was named general plant manager in 1947.



*Kimble Neutraglas serum bottles; serum vials;
trimmed stem and "Tuf-Top" ampuls*

Only Kimble manufactures all three . . .

Serum bottles, vials, ampuls...all of resistant Neutraglas

- Kimble is the *only* glass manufacturer from whom you can get serum bottles, serum vials and a complete line of trimmed stem and "Tuf-Top" ampuls in Neutraglas.

Neutraglas is a borosilicate glass of

special formula with unique properties. It has the highest resistance to chemical attack of any known "workable" glass . . . is ideal for the storage and application of parenteral solutions requiring utmost purity.

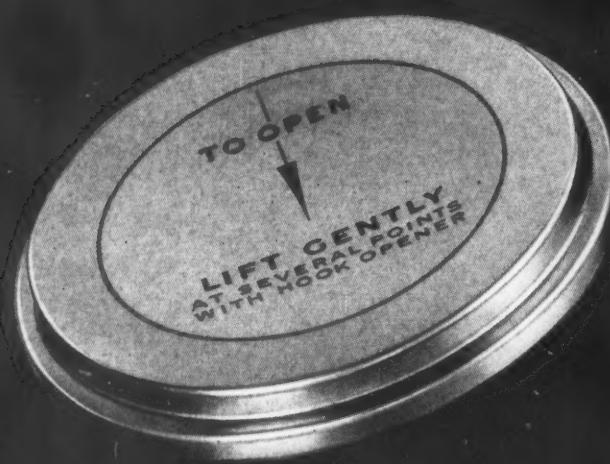
Neutraglas has high resistance to thermal and mechanical shock...withstands the wear and tear of routine usage. Send for quotations and delivery schedules on needed container types and sizes.

SPECIFY KIMBLE FOR ASSURANCE OF CONTAINER QUALITY

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company



Peak of reliability...



THE Anchorvac D Cap is the most dependable tamper-proof vacuum seal known for foods packed in tumblers and jars. Its seal is mechanically effected by compressing the thick, pliable sealing gasket tightly against the side of the container finish, well below the top edge. Its flexing panel allows for expansion of contents . . . internal pressure will not loosen the seal. All types of food products...whether vacuum packed, sterilized, processed, packed hot or cold...are afforded fullest protection by the world famous Anchorvac D Cap.



PRODUCTS OF
ANCHOR HOCKING GLASS
CORPORATION
LANCASTER, OHIO.

THE MATTERHORN...For centuries this well known Alpine peak on the Swiss-Italian border has been relied upon by Switzerland to help maintain its neutrality.

IT'S *Anchorvac D Caps*
FOR THE PEAK OF RELIABILITY

It's *Glass* for convenience...

ONE of the most important reasons for the wide-spread preference for glass packed products is their convenience. For glass containers are easy, quick and safe to open, easy to use, easy to reseal repeatedly. Many products can be heated and served right from the container and it is never necessary to transfer leftovers to other containers for safekeeping. The transparency of glass simplifies shopping, affords a quick visual inventory, and warns when it's time to re-order. Pack your products in glass and take full advantage of the merchandising value of Convenience.



AND IT'S *Anchorglass*
FOR MAXIMUM CONVENIENCE



For Your Information

The Laminated Foil Mfrs. Assn. has been organized by eight companies producing laminated metal foil papers. Don E. Campbell of Standard Rolling Mills, Inc., was elected president at the first meeting. Fred C. Kaiser, Keller-Dorian Corp., was elected vice president. An executive committee composed of W. D. Peters of Reynolds Metals Co., Robert B. Hunt of National Foil Co. and Arthur A. Thomas was also elected. Mr. Thomas, who is serving as executive director, is also secretary-treasurer. Offices are at 1002 UnionTrust Bldg., Providence, R. I.

Processors of vinyl film and sheeting used in packaging and for other industrial uses have set up a permanent trade organization under the sponsorship of The Society of The Plastics Industry, Inc. William T. Cruse, executive vice president of SPI, is acting as interim chairman of this new Processors of Vinyl Film & Sheeting Division.

The Toilet Goods Assn. is offering its members the new "Trademark Record," which covers registered and unregistered trademarks in use in the perfume, soap, cosmetic and toilet preparations industry. Price to members is \$15, to non-members \$25. Orders by members may be

sent directly to the association's headquarters at 9 Rockefeller Plaza, New York. Non-members should order copies from the publisher, *Drug & Cosmetic Industry*, 101 W. 31st St., New York City.

At the annual meeting of the Wood Fiber Blanket Institute in Chicago, R. B. Sawtell, Kimberly-Clark Corp., was re-elected president. J. D. Fischer, Wood Conversion Co., was elected secretary-treasurer. The institute is composed of Kimberly-Clark Corp., Masonite Corp., and Wood Conversion Co., all manufacturers of wood fiber blanket insulation.

"Transparent Plastic Containers—The Modern Way of Packaging," is the title of a new informative catalog issued by Weinman Bros. Inc., 325 N. Wells St., Chicago. It contains general data on materials used in transparent containers. Copies are available on request to the firm.

Two bulletins have been published by Package Research Laboratory, Rockaway, N. J. Bulletin 331, "The Spartan Box for Peaches," supersedes No. 325 and gives detailed information on the packing, car and truck loading, refrigeration, arrival condition at destination, unloading into warehouse and inspection of peaches using the boxes. Bulletin 332, "How to Set Up, Pack, Close and Load Spartan Boxes," has a number of illustrations and diagrams of loading lines.

A display of the redesigned line of Rexall drug products has been opened at the offices of Koodin-Lapow Associates, industrial designers, 250 W. 57th St., New York. It may be seen daily except Saturday from 2 to 4 P. M.

Forty-five case histories of point-of-sale display problems and their answers are packaged in a portfolio just published by Copeland Displays, Inc., 537 W. 53rd St., New York. Copies of "Your Display Sales Builder" may be obtained by writing to the above address.

The Visking Corp., Chicago, has issued a booklet describing the properties of its "Visqueen" thermoplastic film made from polymerized ethylene resins. The flexible, transparent film is said to be particularly applicable for packaging frozen food because of its low MVT rates.

In the belief that it would be of value to industry, "Paperboard Packet and Cardboard Box Manufacture," by E. T. Ellis has been re-issued by The Technical Press, Ltd., Gloucester Road, Kingston Hill, Surrey, England. This book was first published in 1931, but its sale was interrupted by the war.

The B. F. Goodrich Co., Akron, Ohio, has published a new catalog section explaining the yardsticks employed in belt engineering for types of conveyor belt grades, pictures and description of conveyor belts in its line and special constructions obtainable in various grades. Copies are available upon request to the company.

Services of the Trade Mark Bureau of The United States Printing & Lithograph Co. are outlined in a folder now

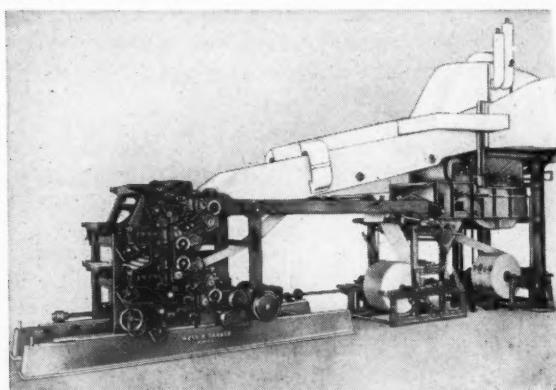
What's doing

- May 18-20—Toilet Goods Assn., Waldorf-Astoria, New York.
- May 20-21—Society of the Plastics Industry, Ambassador Hotel, Atlantic City.
- May 22-25—Packaging Machinery Mfrs. Institute, Homestead Hotel, Hot Springs, Va.
- May 23-26—Flavoring Extract Mfrs. Assn. of the United States, annual convention, Hotel Pennsylvania, New York.
- May 23-27—Super Market Institute, annual meeting, Hotel Sherman, Chicago.
- May 24-26—Proprietary Drug Assn., Claridge Hotel, Atlantic City.
- May 27-31—Fruit & Syrup Mfrs. Assn., annual meeting, Pennsylvania Hotel, New York.
- June 7-10—American Drug Mfrs. Assn., Hotel Mt. Washington, Bretton Woods, N. H.
- June 13-17—National Candy Wholesalers Assn., Inc., Sherman Hotel, Chicago.
- June 14-15—American Marketing Assn., Hotel Statler, Washington, D. C.
- June 20-25—National Confectioners' Assn., annual convention and exposition, Waldorf-Astoria and Grand Central Palace, New York.
- June 20-25—Associated Retail Confectioners of United States, Hotel Commodore, New York.
- June 21-25—American Society for Testing Materials, annual meeting, Book-Cadillac Hotel, Detroit.
- June 23-26—Pacific Coast Paper Box Mfrs. Assn., 34th annual convention, Lake Tahoe, Calif.

It's Piling Up New Records Every Week!

"Why, Bill, we didn't know a printing press like this existed! The Hess & Barker Rotary does the work we used to think was out of the question."

"Lightning speeds on 4 and 6 color printing—printing and rewinding up to 1000 ft. per minute! Or sheeting at the rate of 7500 sheets per minute! Perfect register at all speeds."



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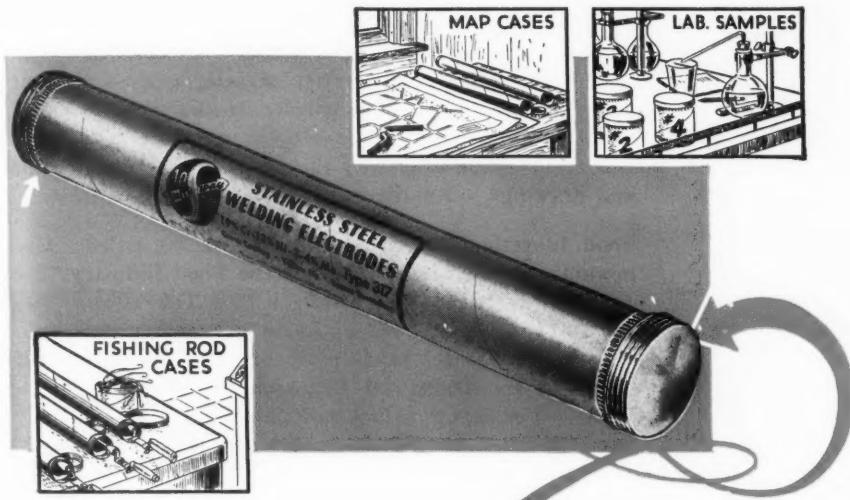
"I could rave on for hours telling you what new records the Hess & Barker is piling up—but stop in and watch it run. Then decide for yourself!"

• • •
Write for fully illustrated folder on the Hess & Barker Rotary Press today. It's a revelation to any printing plant.

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FAST PRODUCTION
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FOR THE LATEST IDEAS IN PACKAGING . . . INVESTIGATE CLEVELAND SCREW CAP CONTAINERS

They serve a multitude of uses.

LENGTHS from the shortest possible to at least 60 inches.

TEN DIAMETERS available from $\frac{3}{4}$ " up to 3".

FINISHED with plain body . . . labeled or waxed if desired.

CLEVELAND Screw Cap Containers have exceptional STRENGTH obtained by our spiral, heavy wall construction. Threaded and capped at both ends if preferred.



The CLEVELAND CONTAINER Co. 6201 BARBERTON AVE. CLEVELAND 2, OHIO

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- Spirally Wound Tubes and Cores for all Purposes
- Plastic and Combination Paper and Plastic Items

* PRODUCTION PLANTS also at Plymouth, Wis., Ogdensburg, N.Y., Chicago, Ill., Detroit, Mich., Jamesburg, N.J.

PLASTICS DIVISION at Plymouth, Wis. * ABRASIVE DIVISION at Cleveland, Ohio

SALES OFFICES: Room 5632, Grand Central Term. Bldg., New York 17, N.Y., also 647 Main St., Hartford, Conn.

CANADIAN PLANT: The Cleveland Container Canada, Ltd., Prescott, Ontario

New

SAFETY BOX FOR LICKING TOUGH PACKAGING PROBLEMS

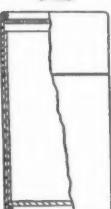


Boxes are ideal for packing anything with a fragile end or with a point that requires protection. Boxes can be made to lock contents in position to prevent damage.

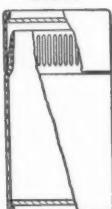
These new tubular boxes have an unique construction which makes the cap tight, sealing even after being removed and replaced many times.

Ask for samples and prices

OLD



NEW*



(*PATENT PENDING)

Ampule is locked in place and really protected. Unique construction holds ampule at shoulder leaving constricted neck riding in air.

BODY TAKES SHOCK. RESULT:
NO BREAKAGE

NIEMAND BROS. Inc.

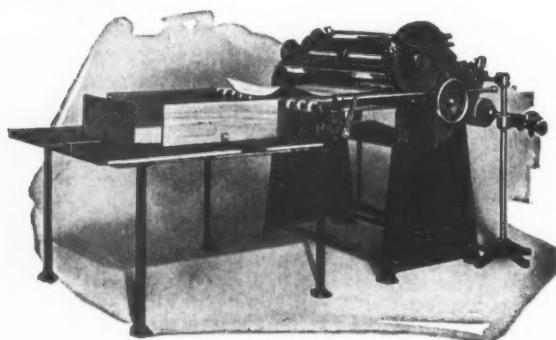
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have been sold to lick the "cost thief" in cutting into sheets all kinds of transparent papers and other packaging materials. Particularly are the "ELECTRONIC-EYE" solving the sheeting problems of your competitors. Their unfailing performance for accuracy and high production might also be the answer to your searching for profit producing equipment. May we answer your questions —NOW?



CHARLES BECK MACHINE CORP.

13th & Callowhill Streets

Philadelphia, Pa.

For Your Information

(Continued)

available upon request. The bureau is set up by the company to supply information on availability of brand names. A charge of \$7.50 per name searched is made. Inquiries may be addressed to: Trade Mark Bureau, The United States Printing & Lithograph Co., Cincinnati.

Examples of packaging uses for pre-plated Nicheloid metals are illustrated in **American Nicheloid Co.'s** brochure on its pre-finished metals. Patterns and finishes are described for industrial designers. This Booklet G may be obtained by writing to the company at Peru, Ill.

A well-illustrated handbook with staccato descriptions of each style and type of folding carton and set-up box has been published by **The Warner Bros. Co.**, Bridgeport, Conn. Copies are available by writing to the company.

The **Dow Chemical Co.** has prepared a technical service bulletin "Ethocel Hotmelts for Paper Coatings," which describes these hotmelts, how they are applied and the properties obtained when used on papers. The booklet is available at Dow offices throughout the country or by writing to Coatings Section, Plastics Division, The Dow Chemical Co., Midland, Mich.

Emphasis on the British conception of packaging is given in a new book, "**Packaging and Display Encyclopaedia**," published by George Newnes, Ltd., London. The 880-page book, edited by E. Molloy, is a compilation of information on current British packaging and display material, techniques and equipment. Sectionalized according to types of packaging materials, it does not stress packaging from the functional, protective or sales aspects in great detail. The book gives evidence of the difficulties encountered in organizing the subject matter in a field like this. However, it is well illustrated with photographs and drawings, primarily of packaging lines in Britain.

Food Investigation Special Report No. 50, titled "Aluminum and Aluminum Alloys in the Food Industry," by J. M. Bryan, staff member of the Low Temperature Research Station, Cambridge, England, which is the main research station for foods of the **British Department of Scientific and Industrial Research**, has just been published. The report, which is available at 3-4d per copy from His Majesty's Stationery Office, London, is divided into four parts: the metal, corrosion by aqueous solutions, corrosion by food products and methods of protection.

Specifications and individual blow-ups of the features of the new offset presses recently introduced by **Harris-Seybold Co.** are presented in a new brochure. Write Harris-Seybold Co., 4510 E. 71st St., Cleveland, for copies.

The **Pacific Coast Paper Box Mfrs. Assn.** will hold its 34th annual convention at Tahoe Tavern, Lake Tahoe, Calif., June 23 to 26. The convention will feature an exhibit of all folding boxes entered in the 1948 Box Competition at the recent Chicago convention of the **Folding Paper Box Assn. of America**. W. J. Field, general manager of the **Fleischhacker Paper Box Co.**, will preside. General chairman of the meeting is Morton Schmidt of the **Schmidt Lithograph Co.**

Adventure in Fine Color Printing

PAYS OFF IN SALES RESULTS

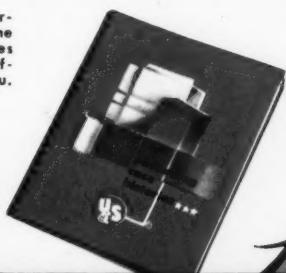


FINE color printing motivates sales for any consumer product. An attention compelling point-of-purchase display . . . a package that thoroughly merchandises the product . . . an outdoor poster "stopper" — each does a superior selling job if skillfully reproduced in full color. For a successful "adventure" in effective creative design and finest reproduction of your packaging and advertising materials, call on the nationwide U.S.P.&L. service.

Write *and*
FOR PORTFOLIO OF CASE HISTORIES

Get this plastic bound portfolio of "Packing Case Histories from the files of U.S.P.&L." beautifully lithographed in full color and exemplifying U.S.P.&L. merchandising, design and reproduction know-how. Write for it today!

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5 GREAT "U-S" PLANTS PRODUCING HIGHEST QUALITY ADVERTISING AND PACKAGING MATERIALS

Here's one place
where a dollar

BUYS MORE TODAY
than in 1939!

When you pay almost double the 1939 price for a ton of coal, you're still only getting 2,000 pounds of coal. No matter how you burn it, you won't average more than 12,500 b.t.u.'s per pound—same as in 1939. And that goes for almost everything else that has gone up in price—you're paying more today, but you get no compensating increase in value.

Compare the cost of your advertising in MODERN PACKAGING on the same basis, and what do you find?

Even with an increase in rates, your advertising dollar, in MODERN PACKAGING, actually buys

more today—not less—than in 1939. Today you receive over 50% more circulation—12,352 for only \$250 per page as compared with a circulation of 9,078 for \$170 per page in 1939. (Net paid ABC 12-time rate.)

In the packaging field, the actual unit sale of machinery, equipment and supplies, the purchasing power, the dollar volume—are all much greater than in 1939. That means that your advertising in MODERN PACKAGING is not only covering a broader area, but a much more fertile one.

The production of raw materials for packaging has increased from 49,518,254,000 pounds prewar to an

estimated 83,517,750,000 in 1948—almost double. So the packaging market today is almost twice as fertile as it was in 1939.

Never before in the history of MODERN PACKAGING have we offered greater value for the advertising dollar than we do today. But the biggest gain belongs to the advertiser who understands how to use the advertising pages of MODERN PACKAGING and the simple arithmetic of reaching 12,352 readers every month for only \$20.24 per thousand. And if you consider an average of approximately three additional pass-on readers per copy, your actual circulation cost is less than \$7.00 per thousand.

*Modern
packaging*

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U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Machine for Making Can Bodies from Flattened Tubing, I. D. Thornburgh (to American Can Co., New York, N. Y.). U. S. 2,436,409, Feb. 24. A machine for making can bodies from flattened tubing in the form of double-walled ribbon, equipped with means for spreading apart walls of flattened tubing, a retractable support element for receiving and supporting opened end of tubing and cutter devices for severing a length of tubing, which produces a partially formed can.

Apparatus for Preparing Yard and Thread Packages for Liquid Treatment, H. J. McDermott (to American Viscose Corp., Wilmington, Del.). U. S. 2,436,481, Feb. 24. An apparatus for applying a cover to an annular package consisting of a support so made that the tubular cover is supported internally while a portion projects from the annular package bearing surface, a mounting permitting relative motion therebetween.

Container Closure, R. C. Shipley, Kalamazoo, Mich. U. S. 2,436,531, Feb. 24. In a container comprising a pair of cooperating members held together in closed position by a plurality of interlocking flanges and movable out of closed position by slidably disengaging flanges, closure means cooperating therewith.

Mechanism for Weighing and Discharging Articles into Selected Compartments, D. B. Tolley (to Globe American Corp., Kokomo, Ind.). U. S. 2,436,534, Feb. 24. A weight grader including a plurality of sorting bins for receiving articles graded according to their relative weights, equipped with a plurality of scales, each being provided with an article-supporting tray.

Dispensing Carton, R. deS. Couch and E. C. Potter (to Container Corp. of America, Chicago, Ill.). U. S. 2,436,553, Feb. 24. A folded dispensing carton of slide-box type, slide members being divided into a series of compartments and including dispensing means for each compartment, compartment closures sealed to prevent emptying of contents.

Filling Machine, C. E. Kerr (to Machinery Corp., San Jose, Calif.). U. S. 2,436,812, Mar. 2. In a container-filling machine having a vertically movable container support for raising and lowering a container to be filled, a filling valve, a movable filling tube within the valve and means cooperatively associated with valve and tube and responsive to the upward movement of the container for moving the filling tube downwardly with respect to valve into container upon upward movement of container.

Downward Stroke Air-Evacuating Jar Sealing Apparatus, H. A. Billetter, Youngstown, Ohio. U. S. 2,436,849, Mar. 2. Vacuum-sealing apparatus comprising in combination a fluid-tight housing having an annular lower end adapted to be brought into fluid-tight engagement with an annular surface on upper portion of jar to be sealed.

Feeding and Gauging Mechanism, R. E. J. Nordquist (to American Can Co., New York, N. Y.). U. S. 2,436,821, Mar. 2. A mechanism for accurately feeding a strip having an undulated edge as an incident to preparing articles therefrom, the combination of spaced turrets located at opposite edges of strip, turrets having radially movable means for fitting into adjacent undulated edge for gauging position of strip.

Printing Ink, R. A. Denton (Sun Chemical Corp., a corporation of Delaware). U. S. 2,436,954, Mar. 2. A printing-ink vehicle which is press stable at normal press-room temperatures containing the following ingredients, a solvent for binder which is water-miscible from the water-soluble glycols and monoethers, a water precipitable binder and heat-reacted neutral resinate of an alkylamine.

Bag-Handling Machinery, W. Dodge (to Paterson Parchment Paper Co., Bristol, Pa.). U. S. 2,436,955, Mar. 2. A bag-engaging unit comprising a pair of spaced T-members, lever hinged between members, T-shaped trigger hinged at one end of the cross bar of trigger, spring between trigger and lever and a pair of bag-engaging presser feet secured to T-trigger stem.

Pouring Carton, J. J. Sullivan, Arlington, Mass. U. S. 2,436,

NOW

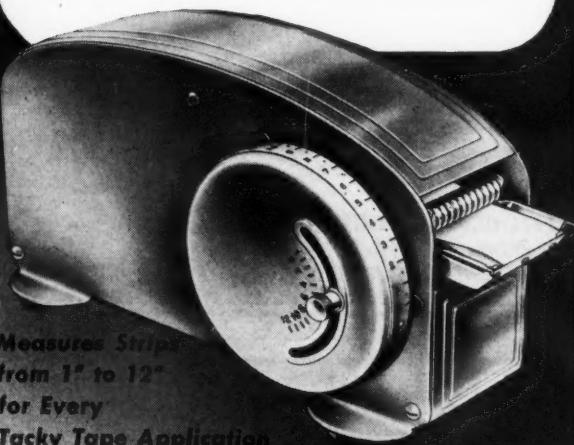
SPEED UP PACKAGING!
CUT TAPE COSTS!

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Counterboy

TACKON NO. 12

PRESSURE-SENSITIVE TAPE DISPENSER



Measures Strip
from 1" to 12"
for Every
Tacky Tape Application

Wherever you use tacky tape—on the assembly line or in the shipping room—Tackon No. 12 will save time, money and effort for you. Easily adjusted to give you repeat, uniform lengths from 1" to 12" or varied strip-lengths as required. Accurate, measured strips mean no tape wasted! This precision-built dispenser is fast and efficient in operation—streamlined, sturdy and steady. Tape is completely enclosed—protected against drying, dust, lint, spoilage—always ready for use.

Handles cellophane or acetate tapes up to
2" wide, some paper and cloth tapes up to
1" wide—3" core rolls, diameter up to 6½"

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Bursting Strength Tester . . . makes the "Cady" or Mullen, or Pop test. Has uniform 12 second cycle, uniform hydraulic pressure, electric motor driven. Registers Bursting pressure of boards and heavy papers in lbs. per square inch. Area under test always visible; non-slip clamp prevents creeping. Available with various pressure gauges. Write for data.



Cady Micrometers for comparing or checking thicknesses of papers and boards. Six inch diameter, easy-to-read dial has metric system graduations. Available with $\frac{5}{16}$ " or $\frac{1}{2}$ " anvil travel; 7" or 12" throat. Also used on plastics, felt, rubber, foil, and other materials needing caliper.

Cady Scales show basis weights for papers and tissues; Paper scales register 1000 sheet count weight, Tissue Scales show 480 or 500 sheet count weight, also graduated in kilograms.

Write for complete information—Literature and Prices



E. J. CADY & COMPANY

Pioneers in Paper Testing Instruments Since 1895

134 N. LaSalle St.

Chicago 2, Illinois

U. S. Patents Digest (Continued)

981, Mar. 2. A rectangular carton having two parallel end walls, two parallel face walls and two parallel edge walls and perforated along two parallel lines extending from two spaced points at opposite sides, carton, adaptable to be opened along perforated lines to provide a closure flap.

Device for Simultaneously Filling and Weighting Bags, E. W. Vredenburg, Berkeley, Calif. U. S. 2,436,983, Mar. 2. A bag-filling device comprising weighing frame movable between unloaded position and container loaded position, equipped with two drives to operate equipment in both positions.

Paperboard Box for Eggs, P. E. V. Jacobsen, Copenhagen, Denmark. U. S. 2,436,997, Mar. 2. A cellular carton with bottom and opposite side walls and hinged cover with a plurality of compartment-forming transverse partitions and a sector-shaped cut-out adjacent the bottom of each partition.

Bag Seal and Handle, C. J. Thompson, Davenport, Fla. U. S. 2,437,055, Mar. 2. A handle for a bag of netted material closed by a drawstring comprising an elongated strip of flexible material having at one end a point formed by the junction of a concave curved edge and a convex curved edge, meeting in an acute angle, having a deep recess extending toward the point forming a hook adjacent the concave edge portion; at the farther end a cord-receiving slot ending in an eye so that when the two ends of the drawstring are inserted in one of the eyes and the strip pressed down to the bag, the bag is closed.

Heat-Sealing Method, H. F. Waters, New York, N. Y. U. S. 2,437,057, Mar. 2. Method of forming a heat seal comprising juxtaposing heat-sealable faces of sheet material and applying heat and pressure to interfuse same in a continuous seam with a flaring, generally V-shaped, excess of the interfused sheet material formed as a dam interiorly and longitudinally of the seam.

Collapsible Container for Air Transportation of Fluids, H. F. Waters, New York, N. Y. U. S. 2,437,058, Mar. 2. A flat-foldable cover for collapsible liquid containers, comprising longitudinal panel sections of fabric, rectangular stiffening inserts within the section, at least two opposed sections being bipartite, all of the sections being joined by hinge lines, separate end sections comprising trapezoidal segments secured to ends of panel sections and having their free ends covered with binding tape.

Bag and Bag-Handle Construction, N. H. Campbell, Toronto, Ontario, Canada. U. S. 2,437,072, Mar. 2. In an assembled bag and handle structure, a handle consisting of a sheet of foldable stiff material of appreciable tensile strength and folded to provide two major panel elements, each panel element being provided with an elongate hand aperture.

Container, F. R. Curtiss, New Haven, Conn. U. S. 2,437,079, Mar. 2. A blank for a folding carton comprising foldably joined front, top, rear and bottom panels; a pair of end panels foldably joined to opposed edges of rear panel, a bottom flap foldably joined to each end panel and adapted substantially to cover bottom panel interiorly of the erected container and including a front locking panel.

Package, M. T. Marler, Los Angeles, Calif. U. S. 2,437,110, Mar. 2. A package comprising a blank of paper having a back section, a front section foldable on the back, a closure flap, end flaps on the ends of the back section foldable inwardly between front and back sections and fastening means for securing closure flap folded on front section made of a strap secured at ends to front section.

Container, G. A. Moore (to National Biscuit Co., New York, N. Y.). U. S. 2,437,114, Mar. 2. A container having an open-ended rectangular body formed from a single blank of fibrous material having transverse score lines to provide five panels, two of which overlap to form one side wall, a cover made of fibrous material having a rectangular base set in from an end of the body and fitting against the four walls, four upturned flanges extending from the four sides of base to end of body walls and surfaces of body and cover being coated, bound together and waterproofed by a heat-sealed thermoplastic coating.

Bag-Feeding Machine with Bag-Opening and Expanding Means, G. Ostrom (to Areco Aktiebolag, a Swedish joint-stock company). U. S. 2,437,117, Mar. 2. In a bag-opening and suspending mechanism for machines to feed and fill bags, a suction head for holding a collapsed bag, means for moving the head transversely past a juxtaposed clamp to allow the bag wall to engage and be detained by a tongue to partially open the mouth of the bag, means for shifting the direction of movement



LOOKS GOOD

. . . and demands attention!

The quality that every carton must have
to meet the merchandising needs of today.



CARTONS WITH
HIGHER "EYE-Q" RATINGS

CHICAGO CARTON COMPANY

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► CUT COSTS

► SPEED WORK

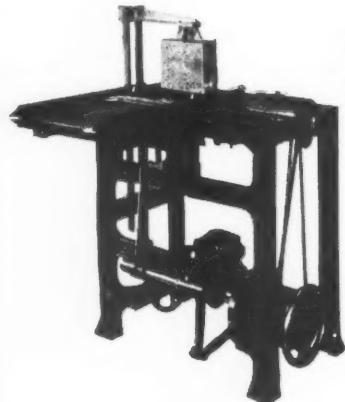
► SAVE LABOR

In Carton Packaging

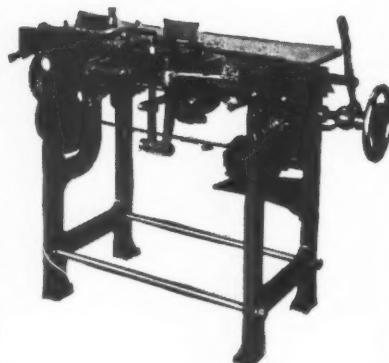
Are you enjoying the broad cost saving advantages of PETERS economical packaging machines in your carton packaging department? Many plants are still using slow, expensive hand methods, when PETERS Semi-Automatic and Automatic machines could do the same job much better, at lower cost and with less labor.

If you are seeking ways to cut your production costs, step up your output and increase profits, investigate these machines today.

Send us samples of the various cartons you are now using. We will gladly send specific recommendations.



This PETERS JUNIOR CARTON FORMING & LINING MACHINE sets up 35-40 cartons per minute, requiring only one operator. After cartons are set up, they drop onto a conveyor where they are carried to be filled. Machine can be made adjustable to set up several size cartons.



This PETERS JUNIOR CARTON FOLDING & CLOSING MACHINE closes 35-40 cartons per minute, requiring no operator. After cartons are filled, they enter machine on conveyor and are automatically closed. Can also be made adjustable to close several different size cartons.

PETERS MACHINERY COMPANY

GENERAL OFFICE AND FACTORY

4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

U.S. Patents Digest

(Continued)

of the suction head to move longitudinally and thereby to slide the bag thereon, clamping means moving toward the bag walls and clamps moving apart to complete opening of the bag.

Feeding Device for Multiple Blade Bread-Slicing Machines, C. H. Petskeyes (to Gellman Mfg. Co., Rock Island, Ill.). U.S. 2,437,124, Mar. 2. A bread-slicing machine having a plurality of reciprocating slicing knives and an inclined chute upon which loaves of bread to be sliced are adapted to be moved toward the slicing knives, means providing a guideway for movement of loaves of bread down the chute and means for conveying loaves of bread to be sliced to the upper end portion of chute, means for successively transferring loaves of bread from conveying means to the upper end of chute comprising a tiltable plate.

Machine for Setting up Box Blanks, H. W. Gregoire (to O. W. Wilkstrom, Newton, Mass.). U.S. 2,437,157, Mar. 2. In a paper-box machine for setting up blanks, a plurality of flaps with aligned or parallel fold lines at one or more walls, at least one of said flaps partly encloses another, means to convey the blanks in a given path along the machine, with a blank breaking or flexing station, said conveying means presenting the blanks successively in temporarily halted position at said station.

Valve-Bag Filler, W. R. Peterson (to St. Regis Paper Co., New York, N. Y.). U.S. 2,437,172, Mar. 2. Apparatus for filling valve bags comprising a scale beam, a bag support mounted on the load end of the beam and comprising a spout adapted to enter the valve of a bag, a housing having a discharge opening normally in line with the spout, with means to drive powdered material and air from the housing through the opening and spout into a bag.

Labeled Fabric Bag and the Like, C. V. Brady and A. F. Ottinger (to Bemis Bro. Bag Co., St. Louis, Mo.). U.S. 2,437,184, Mar. 2. A labeled bag comprising a rectangular blank of fabric material folded upon itself so that its marginal edges are adjacent each other, thereby forming front and back bag walls with stitched inturned seam, a continuous printed paper-label strip peripherally encircling the outside of the folded blank and secured throughout its area by a water-soluble adhesive.

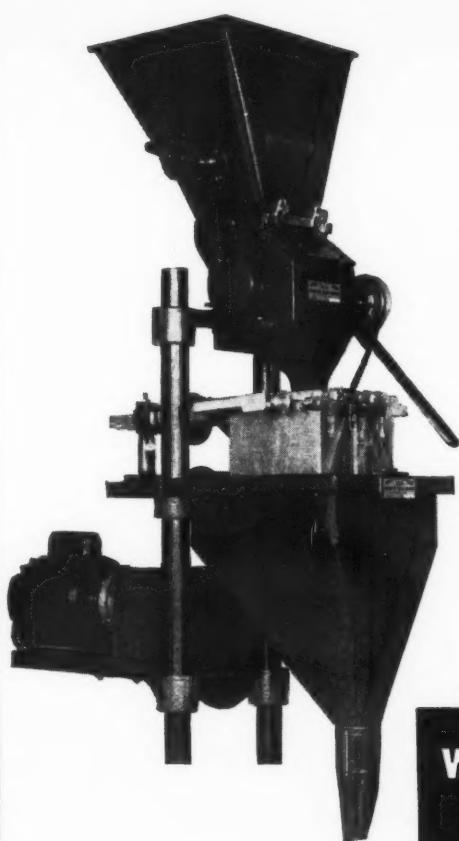
Method of Making Labeled Bags and the Like, C. V. Brady and A. F. Ottinger (to Bemis Bro. Bag Co., St. Louis, Mo.). U.S. 2,437,185, Mar. 2. The method of applying labels to and forming bag-like coverings for packaging by withdrawing from a supply a continuous web of cover-forming material; withdrawing from a second supply a continuous narrower strip of label-forming material; continuously adhesively combining the web with the label-forming strip between and spaced from the edges of the web.

Apparatus for Mixing Dry and Liquid Materials and Loading Them into Containers, J. P. Wilson, H. T. Lewis, Jr., and D. C. Glassford (to Proctor & Schwartz, Inc., Philadelphia, Pa.). U.S. 2,437,216, Mar. 2. Apparatus for delivering material and packing it in an open-mouthed receptacle moving axially while being filled with said material, apparatus comprising a mixing head disposed outside the mouth of receptacle and an elongated filling tube extending from head; a jet for gaseous pressurized fluid axially aligned with and spaced axially from opposite internal open end of tube and means for feeding a loose, dry ingredient of material into head circumferentially under the driving influence of pressurized fluid.

Cutting Device, D. R. Eastwood (to Celanese Corp. of America, a corporation of Delaware). U.S. 2,437,295, Mar. 9. A device for severing a sheet or web containing thermoplastic material, a cutting element, means for heating cutting element by electrical energy which includes heating coil adjacent to cutting element.

Container Closure, G. Glocker and E. Glocker, administratrix, (to Super-Seal Container Corp., Washington, D. C.). U.S. 2,437,515, Mar. 9. A closure assembly for sealing the neck of a receptacle comprising, a disk-shaped portion formed of sheet material, said material extending upwardly at the periphery of the disk-shaped portion to form a raised portion and an annular chamber thereunder with annular bead arranged above and outwardly of the raised portion.

Telescoping Dispensing Nozzle with Fluid Pressure-Operated Safety Valve, A. R. Bink, Westfield, N. J. U.S. 2,437,589, Mar. 9. A fluid-dispensing nozzle comprising telescoping tubular members, together comprising an axially extensible and contractible duct; means associated with the duct for normally maintaining the duct closed, means being movable to open the duct at all times both by axial contraction of the duct and also



NET WEIGHER

Illustrated semi automatic unit is adapted for smooth and faster operation on non free flowing products such as coarse or fine ground coffee. Normal tolerance $\frac{1}{16}$ oz up to 35 per minute and is rated at 4 ozs to 3 lbs approximate; 45 one pound packages per minute is not unusual and employed in many cases with a double spout discharge hopper.

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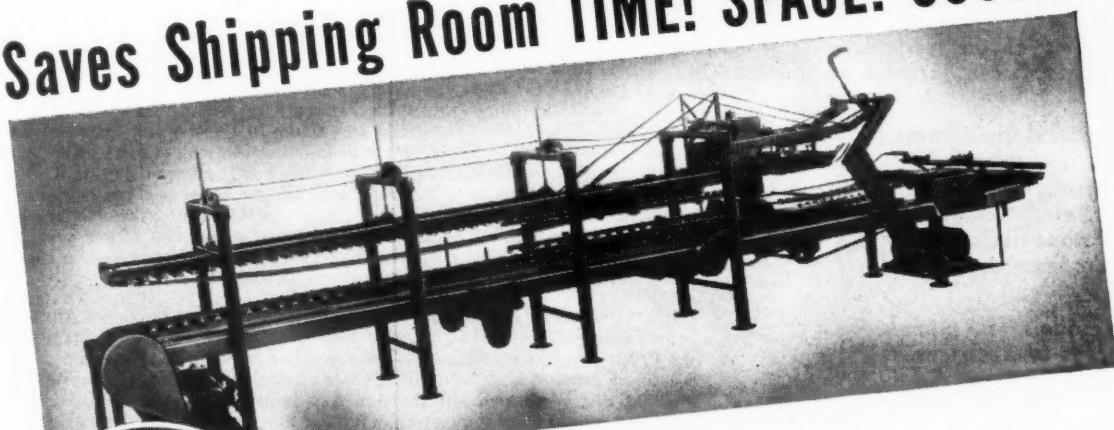
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U.S. Patents Digest (Continued)

by the pressure of fluid at the inlet end of the contractible duct.

Automatic Tape Dispenser and Cutter, H. L. Fitch (to Better Packages, Inc., Shelton, Conn.). U. S. Re: 22,981, Mar. 9. A tape dispenser for a sticky-surfaced tape comprising means for rotatably supporting a supply roll of tape, movable shearing member, means for pulling tape in a strip from roll and adapted to carry tape in a strip form past shearing member where it is cut.

Heat-Sealed Valve Bag, C. H. Hartman (to St. Regis Paper Co., New York, N. Y.). U. S. 2,437,693, Mar. 16. A multi-ply valve bag comprising a plurality of plies of paper, inner ply being lined with thermoplastic material, an end-closing sewed seam, a corner of the bag being turned in at one end of the seam to form a valve, a sleeve in the valve formed of a sheet of paper having its outer side covered with thermoplastic material.

Collapsible Carton, H. Riege and E. C. Siewert (to Marathon Corp., Menasha, Wis.). U. S. 2,437,835, Mar. 16. An improved one-piece paperboard blank designed for automatic high-speed machine assembly into a collapsible carton comprising a folding tray forming part with bottom, rear, front and two side wall panels of equal height hinged to bottom panel, with score lines defining a front triangular section and rear triangular section with connecting flap hinged to each end and designed for adhesive attachment to the inside face of adjacent front section.

Crushing Roll Apparatus for Reducing to Powder Form Materials Packaged in Tablet Form, F. A. Lobley and W. E. Lowell (to Miles Laboratories, Inc., Elkhart, Ind.). U. S. 2,437,831, Mar. 16. Means for reducing to powder form materials packaged in tablet form by sealing the tablet in protecting envelopes, each with a space therein extending about the enclosed tablet by having primary and secondary crushing rolls.

Container, C. O. Ball, G. L. Swope and F. D. Scott (to Owens-Illinois Glass Co., a corporation of Ohio). U. S. 2,437,926, Mar. 16. A container which is a rectangular body of sheet material and a plural-ply top comprising flaps integral with side wall and folded inwardly therefrom, flaps forming a bottom or inner ply, an intermediate ply and a top outer ply, intermediate ply being adhered to the bottom ply and being a removable section unadhered to bottom, equipped with a pour opening and a friction plug hinged to removable section of intermediate ply for swinging movement to and from position for closing pour opening.

Method and Apparatus for Packing Containers, R. Guyer (to Waldorf Paper Products Co., St. Paul, Minn.). U. S. 2,437,952, Mar. 16. The method of packing a container having two box-like sections designed to engage in telescoping relation, the side walls of one section enclosing the side walls of the other section, the method consisting of placing in the larger section a plastic mass of a size to substantially fill the larger section, removing the plastic mass from the larger section and simultaneously admitting air between the plastic mass and the larger portion of the container, compressing the mass and inserting the same within the smaller section and telescoping the sections.

Closure, F. G. Brink (to Rand McNally & Co., a corporation of Illinois). U. S. 2,437,934, Mar. 16. A closure for containers and the like comprising a body portion, first flap hinged mounted on portion and made of flexible material and having a substantially W-shaped slit therein, flap being continuous from slit to marginal edge opposite the hinged mounting, slit forming on one side thereof a first tongue having on its outer edge a notch and forming on the other side thereof a second tongue; second flap of flexible material hinged mounted on portion and second flap having straight continuous marginal edge opposite its hinged mounting of a length greater than the width of the slit.

Milk Bottle Utility Device, J. Stransky, Chilton, Wis. U. S. 2,438,024, Mar. 16. A milk bottle utility device comprising a sheet metal closure cap having integral resilient fingers formed for coaction with the brim of a standard milk bottle to posit firmly the cap against the bottle top and having a medial pouring opening and integral hooks adjoining the opening.

Transporting and Storage Crate, D. H. Bitney (to Union Steel Products Co., Albion, Mich.). U. S. 2,438,030, Mar. 16. In a crate, the combination of top, bottom and intermediate frame members and uprights fixedly secured thereto and U-shaped runners having their arms disposed within and fixedly secured to the ends of the lower of said frame members supporting the runners below the bottom frame and terminating below top frame, runners constituting stacking members nestingly engageable with top frame.



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Heat-seal papers

(Continued from page 151) illustrate the importance of predetermining and then maintaining the correct amount of thermoplastic adhesive coating for the specific requirement:

A textile labeler wanted a heat-seal label paper that would adhere to any and all types of fabrics, from silk and rayon through smooth, hard, water-resistant weaves to coarse, woolly overcoating. The label had to withstand rough handling without falling off, but had to peel cleanly, leaving no adhesive marks or discoloration when intentionally removed. If the label split when being peeled from the textile, it was automatically disqualified. A special heat-seal paper was developed to fill this need. The proper stock was selected. One thing remained to determine—the correct weight of adhesive coat. In military parlance, a "barrage" of samples was tried. The adhesive coat on two was too light; on one too heavy; on the fourth just right. The user was pleased because he was not paying for several pounds per ream more thermoplastic adhesive than he required.

On certain types of heat-seal machines, the factor of adhesive build-up on the activator is important. Waxy thermoplastics have a tendency to build up on the cooler edges of the activator. This is particularly important on delayed-action machines, which activate the adhesive on one element and apply the label or tape on an independent pressure applicator.

A recently developed³ automatic labeling machine (see Fig. 1) effectively utilizes this principle of direct activation through the adhesive face of the label. This method of activation has several distinct advantages, since it avoids the problem of insulating properties of different label stocks and complete activation is insured by adequate heat. Since this method of activation requires the use of a delayed-action thermoplastic, the problem of heat dwell on the activator does not exist.

Considered as a group, this array of variables—time, temperature, pressure, insulating properties of paper, uniformity of adhesive coating, blocking point and adhesive behavior—may appear bewildering. The problem is not as complicated, however, as it appears. By the use of well designed and thermostatically regulated sealing machines, the problem is greatly simplified. By the use of delayed-action thermoplastics, problems of heat dwell and insulating properties of the label paper or tape are brought under control.

Users of glue and other aqueous adhesives are not unaccustomed to variables. Glue consistency, tempering time, curl, humidity and temperature are but a few of the uncertainties which label or tape users expect to encounter.

Dry labeling or heat sealing offers a relief from these ancient enemies. But keep on your toes: all thermoplastics are not alike and some present more problems than others.

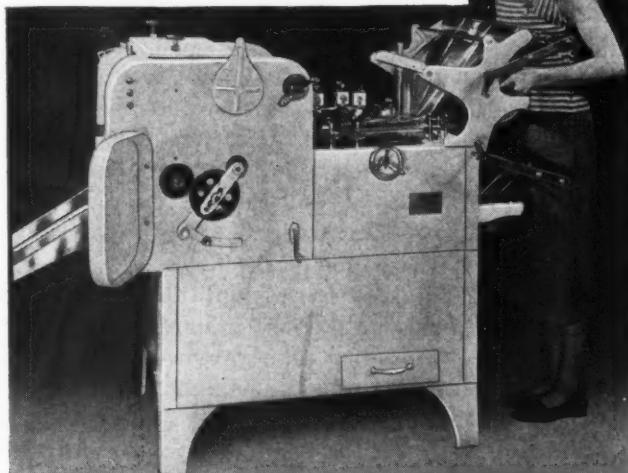
³ By Package Machinery Co., East Longmeadow, Mass.; Thermo-Print labeler.

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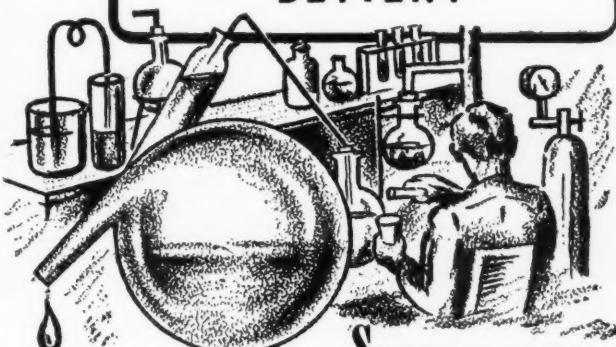
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TO MAKE GOOD
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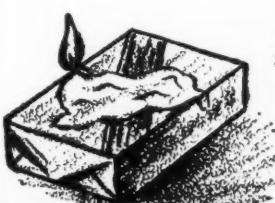
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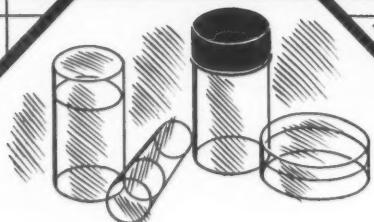
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Frozen food reports

Launching of an industry-wide informative labeling campaign for frozen foods was reported at the annual meeting of the National Assn. of Frozen Food Packers, recently held at the Stevens Hotel, Chicago, concurrently with the National Frozen Food Industry Convention. Results of a survey on current labeling practices were reported and moves will soon be initiated for industry-wide acceptance of standard labeling practices which will enable the housewife to use frozen foods to best advantage. Association officials also reported the establishment of a laboratory for technological investigation.

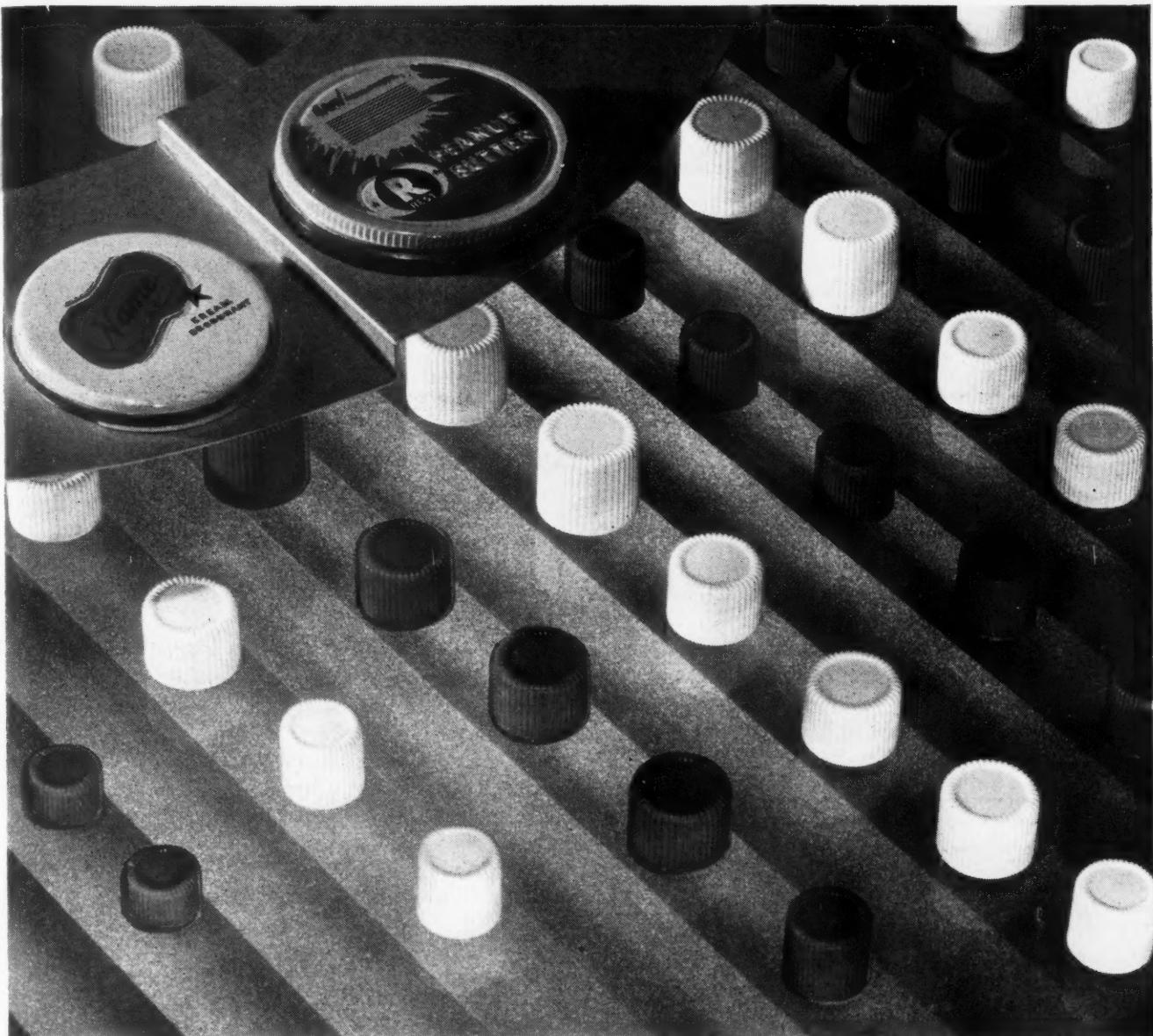
Several papers bearing directly on the packaging of frozen foods were presented at the conference. L. V. Burton, executive director, Packaging Institute, New York, declared that world food shortages, plus the requirements of the European Recovery Program, would increase the demand for frozen foods in 1948 and 1949. The tight supply situation on sheet steel in Europe, he explained, would divert large quantities of foods from canning to freezing in flexible containers. He also reminded frozen food packers that pre-packaging of fresh vegetables confronts them with an important new type of competition.

Speaking on "What the Consumer Expects of Frozen Foods," Elizabeth Sweeney, household equipment editor of *McCall's* magazine, called attention to several ways in which frozen food packaging might be improved. Women who buy these products, she said, "want clean, detailed directions as to how to store, how to prepare and how to serve frozen food." Instructions on frozen food packages, she declared, have ranged all the way from being completely adequate in some cases to completely lacking in others. Dealers, she said, have a mistaken idea that people know all about the products and do not require instructions.

"Women are critical of the lack of information or the inaccurate information on some vegetable packages as to the number of servings supplied," Miss Sweeney said. "They understand cups better than ounces and don't agree on 'medium sized serving.' There is a considerable demand for larger packages of frozen vegetables or, as some people put it, 'better servings for four people.'"

The speaker told of one woman who took a frozen pie, package and all, and baked it for two hours. The producer had not bothered to mention that it should be removed from the package before baking.

Alvin W. Langfield, president, Frozen Food Distributors, Oakland, Calif., urged a cooperative industry program to take frozen foods out of the "Cadillac" class and establish them as an article of daily consumption for the average family. Declaring that as high as 60 to 70% of all frozen food sales in the retail store are made on impulse, Mr. Langfield called for increased emphasis on attractive packaging and urged introduction of modern machinery to eliminate high packing costs. He also recommended the adoption of labels



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IN THESE DAYS of aggressive merchandising, a closure must do more than protect the contents of its package. It must be smartly styled to add extra appeal to package design—attract new customers—keep old ones sold.

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which would remain firmly attached to the packages.

Arthur D. Herrick discussed "The Impact of FDA Standards on the Frozen Food Industry," pointing out that proposed standards will encompass only definitions and standards of fill of container. "The Food and Drug Administration," he said, "sees no immediate prospect of formulating proposals for the adoption of quality standards for frozen fruits." One likely result of the adoption of standards, Mr. Herrick said, would be an increase in the number of products in each packer's line, brought about through subdivision of present categories.

Speaking on "Producing and Maintaining Quality in Eviscerated Poultry," George F. Stewart, Iowa State College, declared that "it is obvious that tight-fitting, moisture-vaporproof packaging is a 'must' for eviscerated poultry when it is to be stored for extended periods of time. A tin container is the ideal package, but is usually not practical except for institutional packs. Metal foils and moisture-vaporproof transparent films will give reasonably good protection if properly used. It is desirable to eliminate completely air pockets and crevices during wrapping and packaging if complete protection against dehydration is to be obtained. In this respect, bags made of moisture-vaporproof film which can be shrunk onto the birds and heat sealed or tied off are particularly advantageous."

Among the items of packaging equipment on display at the exposition was a high speed wrapping machine (Hayssen) specially adapted for banding or overwrapping the metal-end fibreboard cans now being made for frozen foods by several manufacturers. This machine can also be immediately adjusted to handle any of the standard 12- and 16-oz. packages being currently used for frozen foods. Loaded with a printed roll of labels, it features heat sealing and electric eye registration, having a working capacity of up to 45 packages per minute. The special advantage of such an arrangement is the fact that the packer can buy and inventory unidentified containers and label them to meet the requirements of each season's pack.

One paper supplier (Marathon) exhibited a new one-piece laminated carton of snow-white paperboard which requires no liner, yet protects freshness and flavor with a triple barrier against water-vapor loss. This carton may be handled at speeds as high as 150 packages per minute.

A new packaging kit shown for locker plant use (Western Products) contained 24 quart and 24 pint cartons with Pliofilm liners, a roll of Pliofilm, poultry bags of the same material and other items packed in an attractively printed corrugated container. New style frozen food merchandising cabinets on exhibit included one type (Select-O-Freeze) having a spring arrangement which maintains packages in full view and within easy access. Packages are stacked in refrigerated vertical sleeves so arranged that a new package feeds to the top of the stack as soon as one is withdrawn.

Several styles of frozen food shipping containers, including a new light-weight type constructed with walls

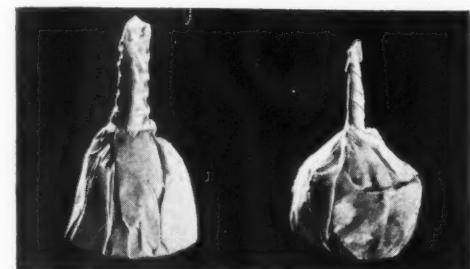
NEW AUTOMATIC Uni-Pak* MACHINE

Makes and Fills "Single Measure Unit" Packages

The sensational Uni-Pak Machine makes, fills and seals individual "teardrop" shape packages. These Uni-Paks are ideal for merchandising "single measure units" and small quantities of powders, flower seeds, pills, drugs, coffee, tea, tobacco, nuts and bolts and many other products.

The Uni-Pak is fully automatic. Once set in operation, it runs for as long as six hours, and shuts off when the paper runs out or breaks. The Uni-Pak needs no operator or attendant.

Forms—The Uni-Pak makes "teardrop" packages $\frac{3}{8}$ " to $1\frac{1}{2}$ " in diam-



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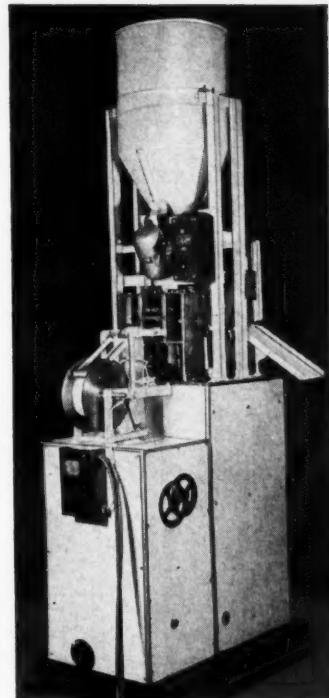
Twisted

eter, from cellophane, diafane, aluminum foil and waxed paper.

Fills—The Uni-Pak fills 60 of these packages per minute. Dual-feed models operate at twice this speed. The machine is equipped with either a meter filler or an auger filler.

Seals—The Uni-Pak closes packages by either crimping or twisting the tail of the "teardrop" which then may be heat sealed. The "teardrop" shape with tail extended suggests a feeling of "pick me up."

Let us show you how "single measure units" will make your merchandising more effective. Send us a sample of your product, we'll Uni-Pak it, and return it with literature describing the machine fully. There is no obligation.



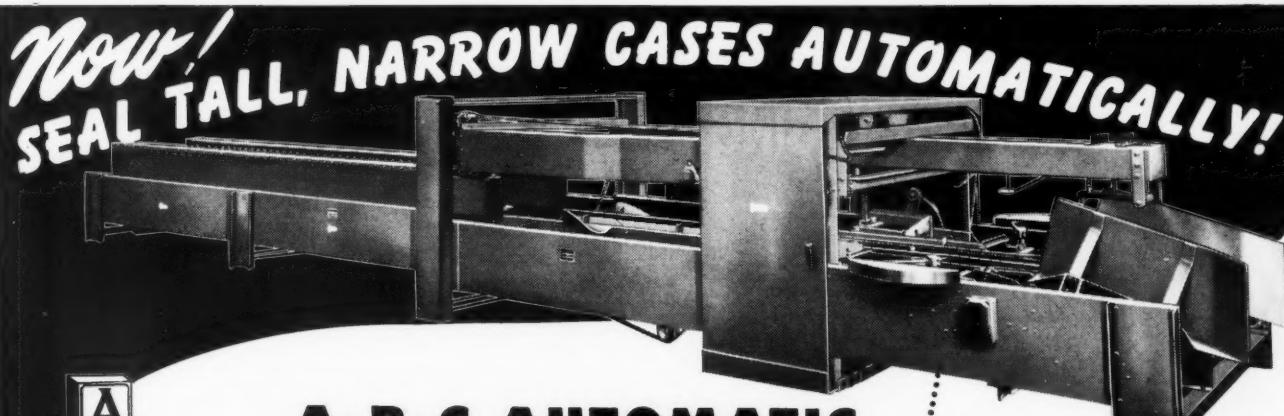
* Trade Mark, Pat. Applied For

A limited number of distributorships are available.

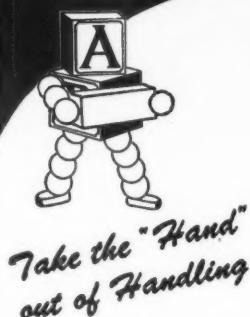
KETCHPEL ENGINEERING CO., INC.

Automatic Machinery

1400 Palisade Avenue • West Englewood, New Jersey



A-B-C AUTOMATIC SIDE SEALER



Take the "Hand" out of Handling

A-B-C

PACKAGING MACHINE CORP.
MOBERLY, MISSOURI

- ✓ Built-in power permits finger tip control.
- ✓ Simple, sturdy construction for minimum down time . . . low maintenance cost.
- ✓ Automatically adjustable to wide range of case sizes.
- ✓ Glue applicator and compression unit supported at 4 points for even pressure.
- ✓ All main drives ball bearing geared head motors.

OTHER A-B-C PRODUCTS

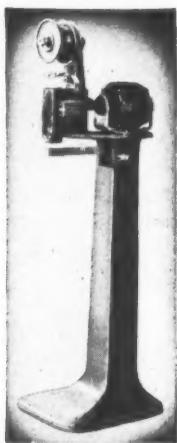
Automatic Top and Bottom Case Sealer
• Semi-Automatic Bottom Case Sealer •
Hand Gluer • Glass Container Case Packer

REVOLUTIONARY!

New PIONEER WIRE STITCHER

Contains 50% fewer working parts

LESS MAINTENANCE • SIMPLER TO OPERATE



IMMEDIATE
DELIVERY
\$225

The Pioneer Wire Stitching Machine, Model A, is designed with fewer parts that might wear out and necessitate costly repairs. It was developed by experts with more than 30 years in the wire stitching field and is built for fast, smooth operation.

Examine the features of this outstanding machine

1. New patented spool tension device—prevents kinking of wire.
2. Long lasting carbide cutters.
3. Parts hardened throughout.
4. Smooth functioning roller bearings.
5. Working parts and clutch housed in one compact unit.

Write today for complete details.

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139 West 20th Street

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FOR BETTER PACKAGING
of Free-Flowing Granular Products



**Use Aluminum Pouring Spouts...
SEAL-SPOUTS**

Housewives prefer them. Why?

- Packages are easier to open — easier to use — easier to tightly close.
- Pouring spouts protect package contents against dirt and contamination.
- They cut down product waste in the kitchen.

Adding "SEAL-SPOUTS" is a simple, speedy process. They are automatically inserted in the production line—without making a hole in the package.

*T.M. Reg. U.S. Pat. Off.

Send for
new descriptive
FOLDER



SEAL-SPOUT CORPORATION

363 Jelliff Ave., Newark 8, N. J.

of Versalite laminated plastic (U. S. Rubber Co.) and insulated with plastic foam were on display.

Manufacturers of packaging machinery and supplies and packaging materials which maintained exhibits at the Frozen Foods Exposition included the following:

Acme Steel Co., Chicago

American Can Co., Sales Promotion Div., New York

Amsco Packaging Machinery, Inc., Long Island City, N. Y.

Can-Tainer Corp., Seattle, Wash.

Chisholm-Rider Co., Inc., Niagara Falls, N. Y.

E. I. du Pont de Nemours & Co., Inc.

Elgin Mfg. Co., Elgin, Ill.

J. L. Ferguson Co., Joliet, Ill.

Food Machinery Corp., Hoopston, Ill.

Goodyear Tire & Rubber Co., Inc., Akron, Ohio.

Hayssen Mfg. Co., Sheboygan, Wis.

Marathon Corp., Menasha, Wis.

Miller Wrapping & Sealing Machine Co., Chicago

Milprint, Inc., Milwaukee

Reynolds Metals Co., Richmond, Va.

Simplex Wrapping Machine Co., Oakland, Calif.

Waldorf Paper Products Co., St. Paul, Minn.

Copper in cartons

Packaging in the modern manner becomes a new development in the building material field with the introduction by Revere Copper & Brass, Inc., of specially



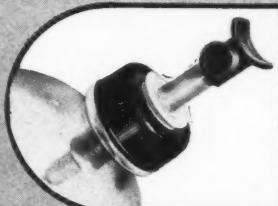
tempered, easily handled sheet copper in convenient size and shape, put up in cartons for distribution as the Revere Home Flashing System.

The new package grew out of research by Revere which made it clear that there was a real need for a system of weathersealing—known technically as "flashing"—low-cost houses with a material that would last, yet be within the means of the average owner.

Each two-color fibreboard carton contains 10 sheets of easily handled copper, pre-cut to 18 by 48 in., 200 hardware bronze nails and an illustrated book of instructions which point up ease of installation. Two packages—60 lbs. of copper—will flash the average five- or six-room house.

By merchandising the product through these channels, Revere hopes to move it as a complete packaged system of materials and instructions into the hands of all builders who previously have had no source of copper flashing in form for ready use.

AGAIN from CALMAR...2 new liquid dispensers



SPRAYER*

Low cost is feature of this non-corrosive, colorful, all-plastic sprayer. Possesses high visual appeal, strong re-use value. For use with practically any sprayable or dispensable liquid product: glass cleaner, disinfectant, deodorant, medicament, cosmetic, liquid food or flavor. Available with 22, 24, 28, 30, 33 mm. metal or molded plastic caps for bottles and cans.



BRUSH APPLICATOR

Perfect for applying nail polish, plastic cement, plastic dyes, adhesives, paints, lacquers and countless other products. Glass rod eliminates corrosion. Hair permanently secured — will not come out. New, inexpensive.



INSECTICIDE AND DEODORANT SPRAYER

For home, hospital and industrial use, where large volume of fine mist is desirable. All plastic, non-corrosive. Made to fit any size bottle or can. New, efficient, durable, inexpensive.

Calmar Company

DESIGNERS and MANUFACTURERS
OF FUNCTIONAL CLOSURES FOR THE PACKAGING INDUSTRY

6800 MCKINLEY AVENUE, LOS ANGELES 1, CALIFORNIA

Your inquiry will draw prompt and detailed information about these and other new sales stimulants for your liquid products.

*Reg. U.S. Pat. Off.

Check these facts about the RODGERS FILLER

Before you buy new or additional paste and powder filling equipment, you should know that the new RODGERS FILLER is the only filling machine with all these special features:

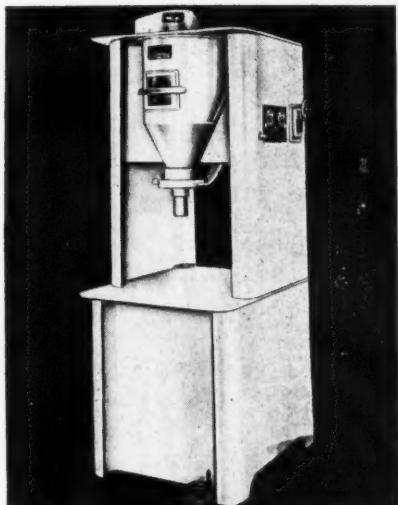
CONTROLLED OPERATION . . . Speeds can be set to fill any type of container with charges of $\frac{1}{3}$ ounce to 10 pounds, and at rates to suit your specific production line.

CLOG-PROOF OVERDRIVE . . . Motor and all moving parts located over fill tube. Hence they can't clog with powder or paste. You save maintenance charges, sharply reduce production down-time.

100% DIAL CONTROL FOR CHANGEOVERS . . . You just turn the dials to make the change—no tools, no tinkering, no time-wasting.

Since its introduction only 18 months ago, the RODGERS FILLER has successfully handled every filling job assigned it—from viscous, heavy pastes, to fine, flaky powders! That's because we can supply it with automatic special-duty attachments and conveyors.

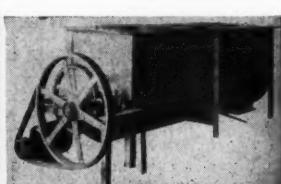
Write now for your free copy of Bulletin M-3, containing detailed information about this amazing new Filler.



POWDER MIXERS. All steel or stainless steel. Capacities from 300 pounds to $2\frac{1}{2}$ tons. Equipped with motor drives.

OTHER RODGERS PRODUCTS

Stainless Steel Tanks Conveyors
Stainless Steel Kettles Tube and Jar Fillers
Tube Clips Portable Agitators
Tube Closers Centrifugal Pumps



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COMPANY, INC.**

225 WEST 34th STREET, NEW YORK 1, N. Y.

PHONE: BRyant 9-2040

Cans of Distinction



Here are "customer-catching" cans—designed and made exclusively for your product. These lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies, cakes and cookies.

Write today for our illustrated catalog.

"No other container protects like the can"

Empire Can Corp.

220 Ashford St. Brooklyn 7, N. Y. APPlegate 7-4701

OPTI-CHEK WILL CUT REGISTRATION TIME!

The simple fool-proof operation of the OPTI-CHEK will cut your registration time in half and eliminate idle presses... for color registering is done off the press and once your plates are in printing position the job is ready to run with no further adjustments necessary. Two OPTI-CHEK models are available—Model F for use with flat-bed presses and Model R for use with rotary presses.

ALSO SEE US FOR the very latest Cottrell-Heinrich press for printing in aniline, gravure or letterpress... in any order or combination.

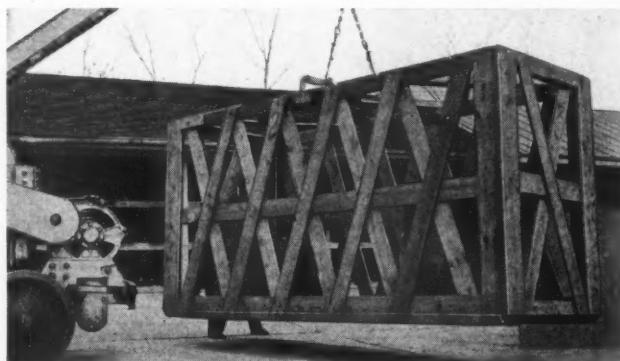
H. H. HEINRICH CO.

200 VARICK STREET
NEW YORK 14, N. Y.

Write for folder on either Model OPTI-CHEK or for further information on the Cottrell-Heinrich press.

New unsheathed crate design

Tests have now been completed on new construction designs for unsheathed wooden crates using 30 to 40% less lumber than fully sheathed crates of the same size



and data on the construction details has been released by the Forest Products Laboratory, Forest Service, U.S. Dept. of Agriculture, at Madison, Wis.

The new design is the result of cooperative studies by Forest Products Laboratory with the packaging branches of Army Ordnance and Army Air Forces made during the war.

In addition to the savings in lumber, the new design stresses demountability features so that the crates can be re-used. The tests have shown the new crates to be comparable in performance to fully sheathed crates or cases of the same size.

The most outstanding change in design is in the side and end panel construction. Each panel consists of a series of diagonal members, one series being placed on the outside of the horizontal frame members and the other on the inside. Each series of diagonals slopes in opposite directions. This symmetry in construction is said to increase the lateral stability of each panel. The diagonals are fastened to the horizontal members at each contact point and by making the angle steeper than usually recommended, need for vertical struts has been eliminated. Number of diagonals depends upon minimum spacing permitted for bolts or lag screws and upon the amount of superimposed loads.

Assembly of the side panels into the complete crate is done with either lag screws or machine bolts so that demounting can be done with a minimum of labor.

The top and bottom base panels are more conventional in design. However, only one top joist midway in the length of the top panel is necessary and that in order to resist the pressure of grabhooks.

The design treats the skids as a part of the side panels. Therefore skid sizes on the bottom of the base are smaller than would be expected, since the portion of stress they ordinarily take is absorbed by the panel or truss. Diagonal braces are recommended for portions of the base not floored. Position and thickness of the flooring boards depend on the nature of article shipped. End sections should have 2-in. lumber if the crates are to be raised by fork-lift trucks, according to test reports.

Specially designed connector plates that can be made

Lithography
by

STECHER-TRAUNG



Yes,
**FULL COLOR
STANDS OUT!**

Your box wraps and labels need FULL Color to do the job you need to do in this critical year. The dramatic sparkle of color—its selling power—its prestige-building qualities—all add up to dynamic packaging that sells! Ask Stecher-Traung now for assistance—learn how easily you can step up the buy-appeal of your products through the use of colorful, top quality box wraps, labels and packaging material.

*Specialists
in Full Color*

STECHER-TRAUNG
LITHOGRAPH CORPORATION

Rochester 7, New York • San Francisco 11, California

ADVERTISING MATERIAL
LABELS BOX WRAPS GREETING CARDS
SEED PACKETS FOLDING BOXES
MERCANDISE CARDS AND ENVELOPES

BRANCH OFFICES Baltimore, Boston, Chicago, Columbus,
Harlingen, Los Angeles, Macon, New York, Oakland,
Portland, Sacramento, St. Louis, Seattle

in any machine shop strengthen the individual bolt or lag-screw fastenings. Placed on the inside surface of the side panels at each fastening in loads exceeding 15,000 lbs., these connector plates were found to decrease the number of necessary fastenings 50%. The number of lag screws or bolts necessary is based on their resistance and lateral loads. The plates measure 2 $\frac{1}{2}$ by 2 $\frac{1}{2}$ by $\frac{1}{8}$ in. Diagonal corners of the plates are bent in opposite directions and the corner points are bent $\frac{3}{8}$ in. Besides the center hole for the lag screw, four smaller holes are countersunk at each corner to be used with 8 d. C. C. sinkers.

All fastenings except for the bolted fastenings on side panels and bottom can be made with nails.

Various sizes and shapes of the unsheathed crates were tested when loaded with contents for which the crate was designed in a series of drop tests, both edge and corner; superimposed-load tests and lifting tests. From the results of these tests where distortion and damage to the crates were measured and observed, design data have been developed for nine different sizes of crates.

1948 gift lines

(Continued from page 104) Corp. Some of these are woven like cords; others are pressure sensitive and may be used as decorative finishes on bottle tops. Some of the tapes have embossed edges. For the designer who needs thousands of made-up bows, the Promotional Packaging Co. is equipped to produce from 50,000 to 100,000 finished bows of rayon satin or other types of ribbons.

Industrial Tape Corp. has launched a variety of year-around cellulose pressure-sensitive gift tapes. They come in plain colors, in designs suitable for birthdays, Christmas, Valentine's day and embellished with popular cartoon characters such as Donald Duck and Mickey Mouse.

The manufacturer of staple items can often find competition by selling a combination of his products in a handsome, sturdy re-usable chest. Such items mean an extra margin of profit when approached with the right merchandising slant. According to the S. K. Smith Co., which produces an extensive line of such specialized containers, this means that the manufacturer whose salesmen have been contacting grocers must start sending them to food departments in department stores. Manufacturers of golf balls must send salesmen with a gift assortment of balls in a chest to gift departments and gift shops. The place at which the purchase is made, plus the appeal of the presentation chest, makes the staple an appreciated and worthwhile gift, rather than just food, hosiery or tobacco.

Many package suppliers go into retailing packaging themselves during the holiday season. Dennison Mfg. Co. plans to have for counter selling one of its largest

CUSTOM LAMINATING AND COATING

Laminating of Foil, Acetate, Glassine,
Pliofilm, Cloth & Paper for all purposes

SPECIAL PLASTIC COATINGS for Heat sealing,
Greaseproofing, Scuff proofing & Waterproofing

» » Standard Products « «

- Foil Labels
- Florist Foil
- Leatherette
- Greaseproof Kraft
- Waxed Locker Paper
- Jar & Bottle Cap Liner
- Slot Insulation (Motor)
- Foil to Board in colors
- Heat Sealing Bag Material
- Acetate to Paper in colors
- Decorative Paper Backed Foil
- Cell-O-Mesh (Glass Substitute)
- Vinyl, Foil, Cloth (Engine Bag)
- Foil Locker Paper (Frozen Food)
- Foil, Kraft, Cloth Packaging Materials
- Polyethylene, Foil, Kraft, Cloth (Engine Bag)

also Custom Sheeting, Slitting & Rewinding

THE FLOYD A. HOLES COMPANY

BEDFORD, OHIO

Up to 10,000 Per Hour



The "Chieftain"—new Modern Clipper machine—represents a brand-new design in bag-making machines. It makes flat and square bags of all heat-sealing materials; cellophane, Pliofilm, foil and plastics—with a speed and efficiency never before equalled. No skilled operator is needed. Easy to operate, precise and economical. Has center seam gluing and duplex bag making attachments.

HEAT SEALS

Because a proper heat-seal keeps out and keeps in all atmosphere, it gives you *certain* sift-proofing and leak-proofing. There is no seal that can compare with a heat-seal for protection . . . no machine that can rival the "Chieftain" for versatility and high-speed operation.

MODERN CONTAINERS CO.

3220 E. Olympic Blvd.

Los Angeles 23, Calif.

LUSTEROID GIVES YOU ALL 3



1

A light-weight container which reduces cost of packing and shipping to point of sale.

2

A non-shatterable container appreciated by your customers, not only for ease in carrying in pocket or purse, but also because it does not break when dropped.

3

A distinctive container which takes your product out of its competitive class and gives it appeal through novelty and color.

Lusteroid vials and tubes are available in diameters from $\frac{1}{4}$ to $1\frac{1}{4}$ inches and lengths up to 6 inches. All colors—clear or opaque. Cork, slip-on or screw-cap closures. Write for complete information.

LUSTEROID CONTAINER COMPANY, INC.

10 Parker Avenue, West
Maplewood, New Jersey

collections of home-use gift wrappings this year, including its well-established lines of packaged tags, cards and seals to match the motifs of its papers. The company's catalogs this year list hundreds of items packaged for retail selling.

Reynolds Metals Co. will increase its promotion of foil in consumer roll packs containing a wide variety of colored and printed foils.

The converters of cellophane are introducing many special retail packages of colorful gift wrappings. Ribbon makers will also make a bigger bid than ever this year for the retail sales of small sized packs of both ribbons and tapes.

Study showmanship

Due to growing competitive conditions everywhere, interest in gift packaging is high this year, particularly for the more practical items which have not been seen in gift array since before the war. If you wish to capture your share of this gift trade, your products must be given the right kind of package showmanship to beat your competition.

CREDITS: A. Harris & Co.: Wraps, Hampden Glazed Paper & Card Co., Holyoke, Mass. Macy's Box covering, The Marcellum Co., Holyoke, Mass. May Co.: Lithographed wraps, U. S. Printing & Lithograph Co., Cincinnati. L. Heller & Son: Design, Ira A. Harmon Co., New York; polystyrene material, Dow Chemical Co. and Monsanto Chemical Co.; molder, Plastic Molded Arts, Inc., Long Island City, N. Y. Laguna pearls: Box, Braun-Crystal Mfg. Co., Middle Village, N. Y. Winton watch: Boxes, Arrow Mfg. Co., West New York, N. J. Parker pens: Box, Farrington Mfg. Co., Boston. Herb Farm Queen's Ransom: Chest molded by Ideal Plastics Corp., New York; material, Monsanto and Dow polystyrene. Elsie handkerchiefs: Lithographed folder and envelope, Rode & Brand, New York. Kabar cutlery and New England fishing flies: Wood boxes, The New England Box Co., Greenfield, Mass. Lightfoot Schultze soap: Design, Guy W. Hodges, Inc., New York; carton, Federal Carlton Co., New York. Owens Brush Co.: Jar, Libbey Glass Co., Toledo. Ritter foods: Design, Frederick Krause, Chicago; leatherette chest, S. K. Smith Co., Chicago. Chatham blanket: Box, Kellogg Container Div., U. S. Envelope Co., Springfield, Mass.; material, Celanese Corp. Lumarith. Coty: Design, J. Brodeur, New York; material, Celanese Corp. Lumarith. Roll-O-Coasters: Box and interior packing, Atlantic Paper Box Co., Boston; material, Eastman Kodak. Lisner pearls: Box, Seaman Box Co., Inc., New York; acetate material, Celanese Corp. of America. Chain store transparent boxes: Material, Celanese Corp. Lumarith; boxes, Transparent Specialties Corp., Cleveland. Corby's whiskey: Carlton, U. S. Printing & Lithograph Co., Cincinnati. Schenley whiskey: Single-bottle cartons, U. S. Printing & Lithograph Co.; display box, The Meehan-Tooker Co., New York. Swiss Colony wines: Design, Norman F. Steuer, San Francisco; box, Fleishhacker Paper Box Co., San Francisco. Carstairs whiskey: Carlton, Container Corp. of America, Chicago. California confections and fruits: Set-up box, Raisin-Thiebaul, Inc., San Francisco. Charms Co.: Laminated aluminum foil box, Reynolds Metals Co., Richmond, Va. Goodman jams and jellies: Jars and caps, Hazel-Atlas Glass Co., Wheeling, W. Va. Fruit cake: Foil-laminated window carton, Shellmar Products Corp., Mt. Vernon, Ohio. Poultry: Polyethylene bags, Shellmar Products Corp. Wisconsin cheeses: Lithographed wraps, Milprint, Inc., Milwaukee. Sperry candies: Boxes, A. Geo. Schultz Co., Chicago. Swift & Co.: Wraps printed by Daniels & Co., Rhinelander, Wis., on Sylvania cellophane.

*...To Give Your
Packaged Goods
a Definite Sales
Advantage*



Kehr-fully made
BAGS & WRAPS

CELLOPHANE, DIAFANE, GLASSINE, ALUMINUM FOIL

... Printed in One to Five Colors . . . Heat Sealed

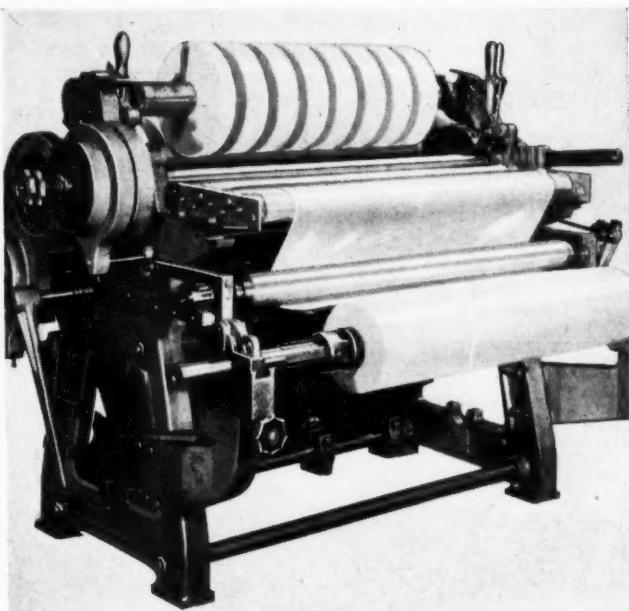
Kehr-designed, Kehr-produced bags and wraps have the quality appeal that invites point-of-sale preference for your products; and they provide the quality protection that assures customer satisfaction and continuing demand. Made of the finest available materials, with highest quality workmanship guaranteed. Printed rolls and sheets for packaging machinery. Prompt delivery in any quantity.

It Will Pay to Ask for a Kehr-fully Made Quotation

Kehr PAPER PRODUCTS CO.
401 N. BROAD ST., PHILADELPHIA 8, PA.

Camachine 24-7

for
top quality rolls
of CELLOPHANE



Camachine 24-7, Cellophane Slitter, is especially designed for fast production of accurately measured, uniformly rewound rolls of cellophane and similar materials. The delicacy of these materials and their lack of uniformity in thickness require extra care in slitting and rewinding. Top quality rolls produced by Camachine 24-7 mean more economical performance in later processing operations. Camachine 24-7 handles webs up to 50" in width at speeds up to 250 fpm, producing top quality rewound rolls up to 16" in diameter, and slitting strip as narrow as $\frac{1}{2}$ ". Special slitter units can be furnished for cutting $\frac{1}{4}$ " strip. Write for illustrated literature.

Cameron Machine Company, 61 Poplar Street, Brooklyn 2, N.Y.

Camachines
FOR FAST, TOP QUALITY ROLL PRODUCTION
...the world over

New Heavy Duty Plastic Bag

NO SIDE SEAMS HIGH TENSILE STRENGTH

Flexible, transparent, heat-sealable—the H&R polyethylene liner was developed to meet the specific needs of the chemical industry. Its unique features give it wide application in other industries for the packaging of semi-liquids and solids.

The bag has extreme resistance to chemical attack, exceptionally low MVT, high tensile and wet strength. Mass-produced by extrusion in seamless tubes which heat-seal to complete airtight closure, it's available in any length, in flat widths from $\frac{1}{2}$ " to 25", in thicknesses from .0005" to .015".

To evaluate this new development in terms of your specific needs, write for samples and detailed information.

H & R INDUSTRIES

EXTRUDED PLASTIC PACKAGING

RACE AND MILL STREETS
BATH, PENNSYLVANIA

See for yourself how
PAVELLE COLOR PRINTS
will improve your
SALES PRESENTATIONS
COMPREHENSIVE LAYOUTS
SHORT-RUN MAILINGS
WINDOW AND COUNTER DISPLAYS
TRAINING PROGRAMS
**VISUAL MATERIAL OF
EVERY KIND**

WRITE US TODAY FOR A FREE SAMPLE PRINT FROM YOUR OWN TRANSPARENCY. Simply mail us your transparency—Ansco Color, Kodachrome or Ektachrome—in any size from 35mm to 8" x 10". We'll return it with a beautiful Pabelle Color Print, at no charge or obligation. What's more, we'll send you full information about Pabelle's special industrial service and about our low quantity prices. See for yourself how Pabelle's life-like, sparkling color prints will keep your costs down . . . and build your results up! Write—but write now—to:

INDUSTRIAL SERVICE DIVISION
PAVELLE COLOR INCORPORATED
533-G West 57th Street
New York 19, N. Y.

Vinyl shipping bag

A re-usable shipping bag of vinyl plastic, said to be lintless and to withstand rigorous handling, is being used by the Carbide & Carbon Chemicals Corp.'s

South Charleston, W. Va., plant to ship wet butyral mix to the Bound Brook, N. J., plant of the Bakelite Corp. The mix is an ingredient used in the production of safety glass interlayer material.



The vinyl bag is claimed to be particularly adaptable for use by chemical companies and manufacturers of other products where lint from a shipping container could damage or contaminate the material which is packaged.

The bags have high tear resistance and holes that could result from cutting can be easily and quickly repaired by heat sealing, according to the maker.

CREDITS: Bag (Vinylite), Bakelite Corp., New York. Fabricator, Kestral Corp., Springfield, Mass.

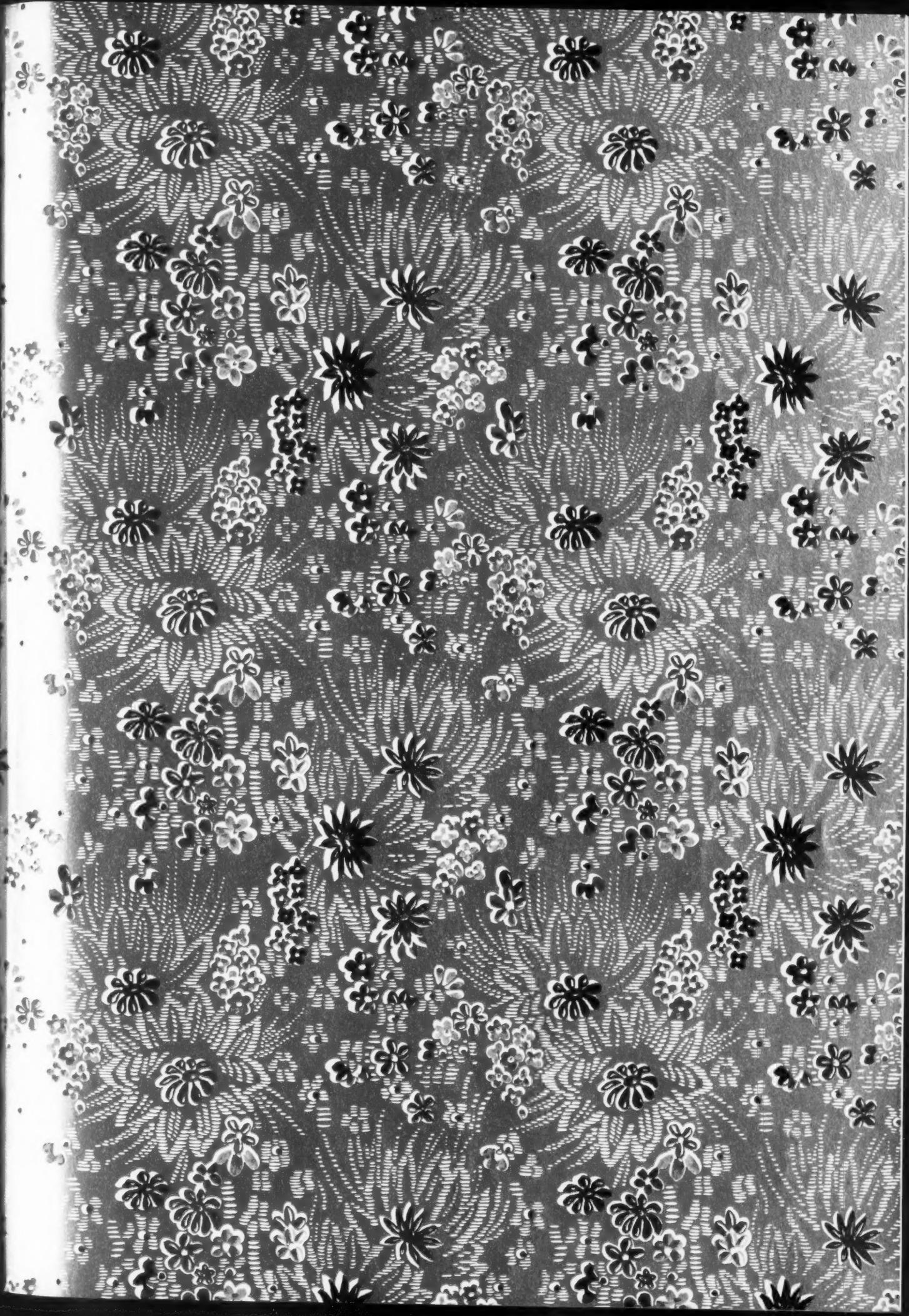
Food packaging course

Among recent visiting lecturers for the graduate course in food packaging being offered for the first time at the University of Massachusetts were Robert de S. Couch, General Foods Packaging Research Division, and Fred C. Baselt of American Can Co.'s Research Division. Other qualified members of the packaging industry are cooperating with the University in speaking to students in the course.

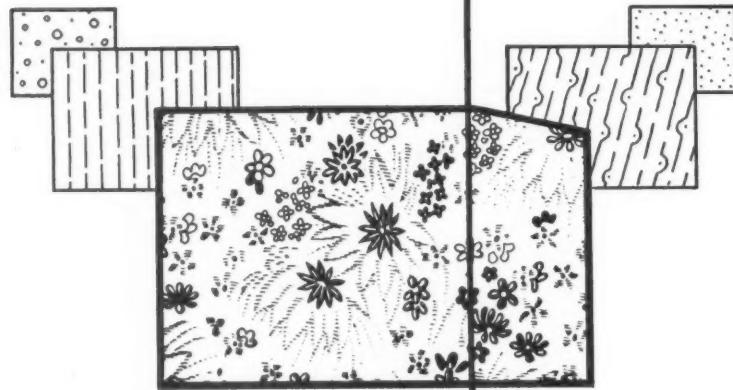
The course, believed to be the first one given in the graduate school of a college or university, is under the direction of Arthur S. Levine, assistant professor in the Department of Food Technology, which is headed by Dr. Carl R. Fellers. It is open to graduate students with a background in food technology and is designed to provide a better understanding of the fundamentals and problems involved in the packaging of foods.

The course program includes lectures, laboratory sessions and field trips to local paper and other packaging material plants. Each student devotes a portion of the latter part of the course to a critical evaluation of commercially packaged food products from a functional viewpoint.

The students will also take part in the department's research program on the packaging of foods in flexible plastic materials.



BEAUKAY



Your product will be
out in front
when it is packaged in

BEAUKAY

A NEW PAPER

by
HAZEN

HAZEN PAPER COMPANY
HOLYOKE · MASSACHUSETTS

Women choose feed-bag prints

Opinion polls on favorite print patterns of cotton dress-print flour and feed bags are being undertaken by the Bemis Bro. Bag Co. Housewives in seven states



have been asked to express their preference for color and design of the printed flour bags according to the company.

In the feed stores where the print bags are sold, interviewers carrying sketches of the patterns ask women customers to select what they consider the 10 best designs in order of their preferences. When the results are tabulated the highest vote-getting patterns are printed on cloth.

New! KASTEK* PROTECTIVE PACKAGING MATERIALS

NEW PROCESS OF CASTING THERMOPLASTIC RESINS DIRECTLY ON PAPER ELIMINATES HIGH COST OF LAMINATION.

INVESTIGATE THIS CUSTOM RESIN COATING SERVICE NOW:

KASTEK*PE

Heat sealable POLYETHYLENE films supported on industrial papers. Film gauge as low as .0005" and widths up to 60". Low temperature flexibility and moisture-vapor resistance.

KASTEK*V

Abrasion and grease resistant cast VINYL films on industrial papers. Film gauge as low as .0005" and widths up to 60".

PLASTIN*

Vinyl-aluminum-fabric, moisture vapor barrier. For many uses as heavy-duty, heat-sealed, floating bags and pouches for shipment and storage.

*TRADEMARK

Write for Samples and Quotations

PLASTIC FILM CORP.

475 Fifth Avenue

New York 17, N. Y.

MANUFACTURERS OF SUPPORTED AND UNSUPPORTED CAST THERMOPLASTIC-RESIN FILMS.

Factory: Plainfield, Conn.

Brand name citations

Two package suppliers were honored at the Brand Names Foundation's luncheon recently as having brand names over 50 years old. The Chase Bag Co. New York, has used the name "Chase" since 1866. The Tension Envelope Corp., New York, has used its "Tension" brand name since 1886. Both companies were awarded certificates of public service during the luncheon. F. H. Ludington, president of Chase Bag Co. and Walter M. Langsdorf of Tension Envelope Corp. accepted the awards.

Oldest of the companies to receive the Foundation's recognition was "Amami" brand of shampoo, hair preparations and toiletries manufactured by Prichard & Constance, Inc., Bloomfield, N. J., since 1831. Other brand names saluted by the Foundation included "Jacquin" liqueurs, "Philip Morris" cigarettes, "Mail-lard's" cocoa, "Butterick" paper patterns, "Remington" typewriters, "Coca-Cola" and "O. T. C." oyster crackers.

The citations are awarded annually to brand names which "have been tested by the judgment of the American people for 50 or more consecutive years and have won and held public confidence through unfailing integrity, reliability, quality and fair pricing."



ROUND TUBES AND PACKAGES Available Now!

PACKARD offers spiral-wound round tubes and containers in all conceivable lengths and diameters—drum-shape, long, thin, flat. Sturdy and light-weight, PACKARD containers are perfect for any dry commodity—foods, drugs, chemicals, cosmetics, toys, novelties, insecticides, electrical products, shipping, textiles.

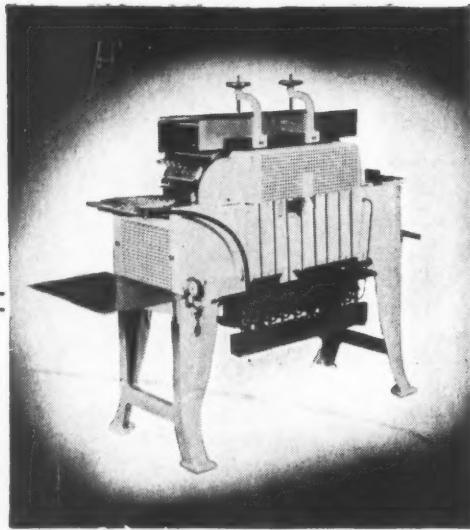
And these low-cost containers are available immediately! Whether you choose metal-end or paper-cap, plain or labelled—watch your product go in a PACKARD package.

PACKARD CONTAINER CORP.

5811 Park Avenue

West New York, New Jersey

Phone Union 5-5818



The PerfeKtum AMPWASH

A unique machine which provides a new and improved method for washing and cleansing ampuls, vials, tubes, etc.

Semi-automatic in operation, the AMPWASH feeds, cleanses and discharges the ampuls rapidly and with a minimum of breakage. The AMPWASH is sturdy built of corrosion-resistant materials and is very flexible in operation. With a few simple adjustments, the machine may be adapted to feed and cleanse glass containers of a wide variety of sizes and shapes. Write for literature on the AMPWASH and our other ampul filling and sealing equipment.

PerfeKtum
PRODUCTS COMPANY
Established 1922
300 Fourth Ave. New York 10, N.Y.



Distinctive Creations



The Alsten Company

Designers and Manufacturers of Watch, Ring, Jewelry Boxes and Displays
161 AVENUE OF THE AMERICAS, NEW YORK 13, N.Y.

Transparent machine

(Continued from page 117) 274 employee-hours that would have been needed to weigh the same volume of chips by hand. At 70 cents an hour, this was a clear wage saving of \$128.20 a day. The percentage of waste in machine packaging averaged 1.705, as against 4.36% by hand, and on this basis 385.4 lbs. of product were saved in one week's operation of the machine. The amount saved in crumbs alone in this one week would run to \$2,789 per year; the indicated labor saving was \$23,211 a year, for a total annual monetary saving of \$26,000.

Mr. Doolin concluded that the saving in crumb loss would run from 10 to 13 lbs. on 10,000 five-cent bags of corn chips and he advised his licensees that this saving alone would cover the depreciation on the machine.

These figures, Mr. Woodman points out, apply only to corn chips, which are easier and less expensive to handle than potato chips. The over-all savings on potato chips, he claims, would be about 25% greater.

CREDITS: Machine developed and built by The Woodman Co., Inc., Avondale Estates, Ga. Acrylic parts fabricated by Gladwin Plastics, Atlanta, Ga. Acrylic material supplied by Rohm & Haas Co., Philadelphia, and E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Iodized fruit wraps

(Continued from page 153) a second oil-impregnated wrap was placed round the fruit to prevent the loss of iodine and water vapor. This resulted in a generally fresher and more attractive appearance than without the extra wrap.

TABLE I—TO SHOW THE EFFECT OF AN EXTRA WRAPPER

(Reprinted from D. J. Dreyer's Report, Ref. 4b.)

Type of wrapper	Wastage
Sulphite wrapper only	100%
Iodized crepe paper	17%
Iodized crepe paper and outer layer cellophane paper	17%
Iodized crepe paper and outer layer lightly waxed paper	12%
Iodized crepe paper and outer layer heavily waxed paper	11.5%
Iodized crepe paper and outer layer "crystalline" paper	10%

NOTE: The "crystalline" paper left the fruit more attractive and bright in appearance, possibly because it kept the humidity higher.

Rattray found that wastage tends to increase with fruit maturity and suggests that exporters should not try to catch late markets with over-ripe fruit unless prepared for extra losses.

Dr. du Plessis (3) tried the effect of adding sodium carbonate in aqueous solution to the wood wool, but although this reduced the iodine stain, it left one nearly as bad. He also found that dry dusting of grapes with chemicals such as sodium metabisulphite and ammonium carbonate was dangerous to the surface of the fruit. Against Botrytis, Penicillium and Rhizopus infection,

EMP "COMPLETE UNIT" PHOTO-ELECTRIC CUT-OFF REGISTER CONTROL

For any machine needing fast, positive registration and cut-off

The EMP Photo-Electric Cut-Off Register Control is the only device of its kind furnished complete with every component,* ready for immediate attachment to your printing press, bag making, packaging or other machine that needs registration or cut-off control. It regulates web position electronically, insuring perfect color registration and material cut-off. The motor driven differential assures freedom from fluttering and whipping and guarantees longer life.

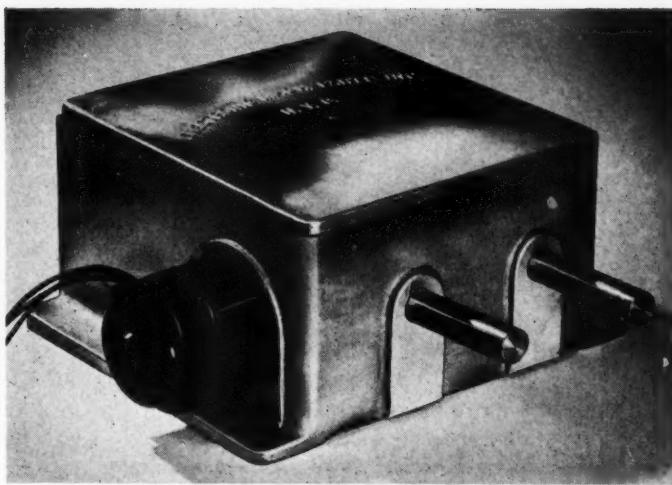
Using the EMP Cut-Off Register Control on your machine offers these 4 additional advantages:

1. INCREASED PRODUCTION

Automatic registration allows the operator to give more attention to the functioning of the machine, thereby reducing "down time."

2. REDUCED INSPECTION COSTS

Since register is maintained automatically, there is no necessity for constant visual inspection.



IMMEDIATE DELIVERY

3. EASE OF OPERATION

Adjustments require only turning a thumb screw. No further attention is required once the Cut-Off Control has been set for a specific bag or wrapper.

4. IMPROVED PRODUCT APPEARANCE

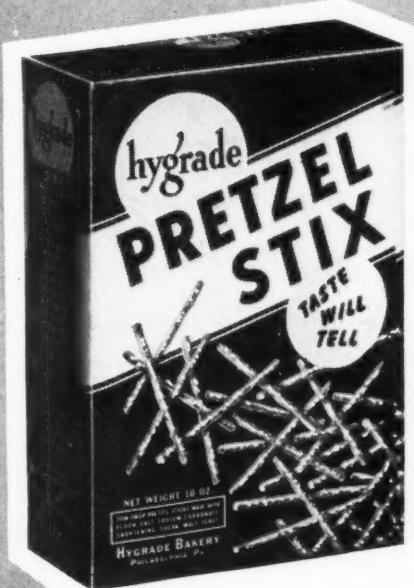
All printed matter is accurately positioned, providing a neat, attractive appearance.

*Photo-electric scanner, electronic Thyrotron amplifier, motor, selector and differential switches.

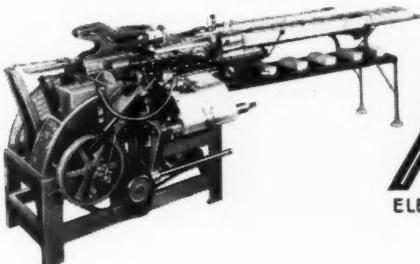
Write today for price.

**ELECTRONIC
MACHINE PARTS, INC.**

204 Lafayette Street, New York 12, New York



IT PAYS TO WRAP
THE HAYSEN WAY



Hayssen
ELECTRIC EYE
WRAPPING MACHINES

OVERWRAPPING THAT IMPROVES APPEARANCE

Crystal clear, show window type of material, heat-sealing foil, or opaque white in beautiful color combinations, look better around your carton when wrapped on the Hayssen Carton Wrapping Machine. Crisp folds held securely in place by neat end sealing, add the final touch of attractiveness to your package, so necessary to compete for the Shopper's attention. To find out how the Hayssen can successfully serve you, send an outline of your wrapping requirements to the factory today. No obligation, of course.

Hayssen Mfg. Company Sheboygan, Wis.



Minerva customers' packages are handsomely designed and printed—for important eye-appeal. Packaging materials of paper, film or foil meet a variety of requirements. What they DO for each product's protection and salability is frequently a reflection of our own wide experience in matters of adaptability, procurement and production. Write us concerning your packaging problem.

**CONVERTERS,
LAMINATORS,
PRINTERS OF
PAPERS, FILMS
AND FOILS**

MINERVA
WAX PAPER CO.
MINERVA, OHIO



VP visual perception

individualized labels, tags,
box wraps, seals for quality products

creative designers-printers * quality packagings for 23 years

CAMEO
DIE AND LABEL COMPANY
154 West 14th Street
NEW YORK II, N.Y.
Canada: Cameo Crafts Inc., Montreal & Quebec

iodine reduced the losses to 25%. Similar results obtained in Spain and New Zealand, where the grape fungi also included Cladosporum. Du Plessis also showed that, whereas a sulphite impregnation reduced the losses to 42%, an iodized wrapper reduced them to 20% (i.e., twice as efficient). He further confirmed the greater susceptibility of ripe fruit to Botrytis infection and the marked variation in attack by this fungus in different years.

Singh (2) showed that iodine was very effective for tomato-rot control in India and that wood shavings were the most successful media for the iodine. Various dipping solutions tried, such as potassium permanganate and sulphite, were impracticable. Iodoform tainted the fruit and it was noticed that individual plain paper wraps gave some control. He further confirmed that the smell of the ripening fruit was obscured with no harm to the tomatoes in any way.

The actual solution used to impregnate the paper or wood shavings consists of a mixture of iodine dissolved in methylated spirits and potassium iodide solution (in water) to give a concentration of about 1.5% iodine and 1 to 2% potassium iodide. The wood shavings may be dipped into barrels or tanks of solution, drained and dried, and for paper the solution is usually poured on and spread over the flat surface by hand, using rubber gloves. Iodine forms a loose chemical compound with both the potassium iodide and the cellulose of the paper and wood which breaks down and slowly gives off free iodine vapor. Since the solubility of the iodine is dependent on the amount of potassium iodide present, this gives a useful control of the iodine concentration, for the iodine solubility decreases as the amount of potassium iodide present is reduced. Manufacturers wishing to experiment with trials will probably have to make their own impregnations at present, although any enterprising outside firm should find no difficulty in using the solutions. All the substances are common chemicals and, although the iodine and iodide are moderately expensive by commercial chemical standards, they are much cheaper than some suggested organic iodides, such as iodoform and the others mentioned in the various reports; indeed, price might well prohibit those other substances.

Summary

To summarize, iodized wrappings are the best available at present, giving a general reduction of at least 50% in fruit wastage and often very much better. It is presumably only the restrictive food laws which have prevented wider use of this technique.

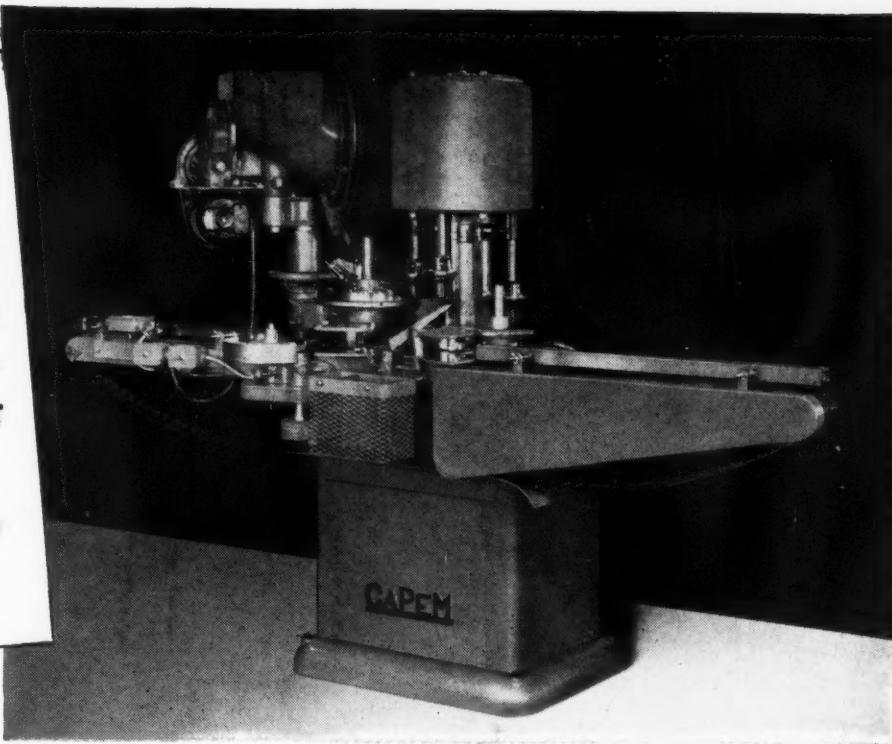
The iodine in general does not affect the taste, smell, appearance or ripening qualities unless used in excessive quantities, with the exception of certain varieties of apples and plums which show a surface discoloration. For those special fruits, other wraps, such as sulphite, are suggested. The desired concentration of iodine and potassium iodide is 1 to 2% in solution each, which will then give control against all types of fungi.

The food laws of this country (Britain) are very re-

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SCREW-CAP AT 2,000
TO 10,000 AN HOUR
... DELIVERS A LEAK-
PROOF SEAL ... AT
LOW COST

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8 spindle models
Write for prices



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DRINK from a Dixie Cup . . . and you drink from an example of fine aniline printing quality. Print from MOSSTYPE pre-madeready rubber plates—as Dixie Cup Co. does—and you, too, enjoy superior printing results and lower production costs. Write us today—find out how Moss-type "Art-to-Plate" Service can help you.



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MOSSTYPE RUBBER PLATES.*

MOSSTYPE CORPORATION

33 Flatbush Avenue
Brooklyn 17, New York

pre-madeready MOLDED RUBBER PLATES • DESIGN ROLLERS



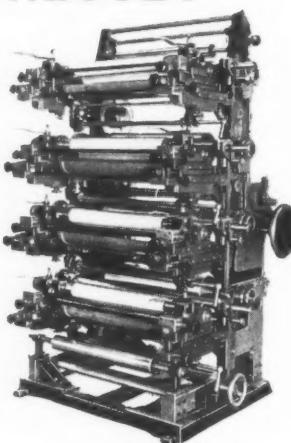
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MANHASSET ANILINE PRESSES

2-3 & 4 COLOR
(UP TO 50" WIDE)

Press illustrated has these
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1. Easy to throw ink rollers in or out of contact—without disturbing original setting.
2. Easy to throw plate cylinder in or out of contact with impression cylinder.
3. Easy to throw ink roller in or out of contact with plate cylinder.
4. Easy to raise or lower ink pot.
5. Vertical & horizontal register while press is in operation.
6. Can be used as a roll press or directly with bag machine.



Model AP-424

We also manufacture bag
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MANHASSET MACHINE CO.

255 EAST 2ND STREET

MINEOLA, N. Y.

P. O. BOX 231

Since 1883

LABELS
BOXES
DISPLAYS

IF YOU ARE
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HOWELL
★
OF ELMIRA
WILL GLADLY
CONSULT ON
ANY
PACKAGING
PROBLEMS

The Quality and Character
of Howell Made Packages
is Identified Instantly.

F. M. HOWELL & CO.

79-95 Pennsylvania Ave., Elmira, N. Y.

strictive and should be consulted, but there seems no reason why foods other than fruit—eggs, for instance—which are liable to fungus attack should not benefit from this new mode of packing.

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6. For other impregnants see U. S. Dept. of Agriculture Circular 177 and Technical Bulletin No. 488.

Cosmetic cartons

"Most bottles and containers of toiletries are charmingly designed, but I discard more cardboard packages than I display," says window-display director, Henry F. Callahan, of Lord & Taylor.

"The few firms who do a simple imaginative job of cardboard packages always get good displays," Mr. Callahan remarked in a talk before the Fashion Group, Inc., Cosmetic Division, at which the discussion subject was "Promotion Tie-ins Between Fashions and Cosmetics."

Mr. Callahan mentioned three examples of paper-board packaging which he considered outstanding in the cosmetic field: Schiaparelli "Snuff" line, Charles of the Ritz "Moss Rose," Shulton "Old Spice" and "Friendship Garden."

"The majority of cardboard packages don't even hint at the treasure within," he said. The importance of name and packaging in cosmetic promotion was indicated by Mr. Callahan's outline of display procedure at Lord & Taylor.

"When a new color fragrance or line is offered for promotion," he said, "our buyer, Alice Farley, asks me if it has display possibilities. If it has, I plan with her on how gracefully the product fits in with our fashion promotion."

Most successful recent tie-ins at Lord & Taylor were Ann Haviland's "Blue Hyacinth" line with period coats in a mass setting of flowers—and Revlon's "Sweet Talk" with mauve-toned junior cotton dresses.

Other speakers were: J. A. Marcus, cosmetic buyer for the Hecht Co., Washington, D. C.; Miss Ruth Mugglebee, beauty and fashion editor, *Boston Record-American*; Miss Patricia Bristol, cosmetic division manager, United Cigar-Whelan Drug Stores Corp.

For MODERN PACKAGING like this...



Above—Four Scale Net Weigher

At Left—High Speed Carton Feeder and Bottom Sealer

At Right—Rotary Top Closure Machine

America's leading producers

USE MACHINES LIKE THESE . . .

Modern low cost packaging and Pneumatic are almost synonymous, and for proof, you have only to study the kind of equipment serving America's leading producers.

In plant after plant you will find machines such as these doing their job with that certain smooth, efficient dependability which makes

light work of large volume. Look at the record—and then look to Pneumatic for your packaging equipment needs.

PNEUMATIC SCALE CORPORATION, LTD., 82
Newport Avenue, North Quincy 71, Mass.
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PNEUMATIC
LOWE COMPANY INCORPORATED

PACKAGING AND BOTTLING MACHINERY

Over ninety different machines for the packaging of dry, free-flowing products and the cleaning, filling, capping and labeling of containers for liquids and semi-liquids

KINKS IN YOUR PACKAGING LINE?

Our job is to supply standard equipment to do standard packaging jobs like wrapping, sealing, conveying and filling.

We also design and engineer efficient packaging systems and design and build special machinery for special packaging needs.

If you need any kind of help in setting up or modifying a packaging operation, we'd like to consult with you.



New Candy Pop Wrapping Machines. Cellophane wraps 120 lollipops per minute with 2 operators. Delivery in 60 to 90 days. Very low cost.

WRAP-ADE MACHINE CO.

778 Bergen Street

Brooklyn 16, New York

Phone: NEvins 8-8052

The advertisement features a central circular logo for "WESTERN CARTON CO." with "FOLDING CARTONS" and "KALAMAZOO, MICHIGAN" inside. Surrounding the logo are several illustrations of different types of cartons and displays:

- Folding Cartons:** An illustration of a simple box-like structure.
- Die Cut Blanks:** Flat or Stiched
- Window & Counter Displays:** A small counter display unit.
- CARTONS • DIE CUT INSERTS FOR TANGIBLE MERCHANDISE • SUIT & MILLINERY CARTONS:** A large rectangular carton.
- BAKERY CARTONS:** An illustration of a box with a handle.
- PARCEL POST SHIPPERS:** A small box with a handle.
- PARTITIONS OF ALL TYPES:** An illustration of a box with internal dividers.
- Setup Box Blanks:** Illustrations of flat panels used to assemble boxes.
- Push Boxes and Crates:** Illustrations of larger shipping containers.

MANUFACTURERS OF

FOLDING CARTONS •

WINDOW & COUNTER DIS-

PLAYS • DIE CUT SET-UP

BOX BLANKS • PAPER CAR-

RTERS • 2 PC. FLATS FOR

STITCHED OR METAL EDGE

CARTONS • DIE CUT IN-

SERTS FOR TANGIBLE

MERCHANDISE • SUIT &

MILLINERY CARTONS

• BAKERY CARTONS •

PARCEL POST SHIPPERS •

PARTITIONS OF ALL TYPES

WESTERN CARTON COMPANY

KING HIGHWAY
KALAMAZOO, MICHIGAN

CREATORS - DESIGNERS OF DISTINCTIVE PACKAGING AND SPECIALTIES
CHICAGO SALES OFFICE - 727 NORTH MICHIGAN AVE - PHONE SUPERIOR 7-118-5221

Ceramic color labeling

(Continued from page 126) heat of about 1,150 deg. F., fuses the design into the bottle.

Roughly, cost comparisons are about as follows: The offset or printing method is the least expensive; the screen method is next in the ascending scale and the transfer decalcomania method, which requires considerable hand work, is the most expensive.

Non-permanent methods

All of the foregoing methods, it will be noted, require high firing and a long baking process in order to fuse the design onto the glassware where it will remain practically indestructible during the entire life of the container itself.

However, for companies whose products require only a single-use container with merely temporary identity, equipment and materials are at hand. One company specializes in the production of machines, inks and supplies for in-plant operations, making a small model for single color and a larger model capable of producing two-color works. The imprinting makes use of molded rubber plates which are easily interchanged. Inks are available in three basic modifications. One of these is for air drying that does not require any firing; the imprint is removable through the use of high-potency solvents.

Another type dries quickly, but requires baking at 300 to 350 deg. F., which produces high resistance to solvents of all types. The third type of ink for use on these machines involves ceramic pigments which require the high firing for a permanent bond to the glass container.

Another recent development is a machine which may be adapted for either glass or metal containers, designed to obviate the necessity for using paper labels. This machine, its makers declare, will print containers in one to four colors in one operation directly onto the container at speeds as high as 120 per min. The machine is said to be adjustable to various sizes and diameters. Printing is done from plates that apply a light coating of color to the container and only a period of baking is required.

Direct printing or marking of glass containers has long since emerged from the trial or experimental stages.

Whether the package user's needs call for one-trip packages or for re-use containers; whether he seeks durability, utility or decorative effect, the methods are diversified enough to meet his requirements. There is no monopoly of equipment or know-how, although among the glass companies and service organizations who are equipped to do the work there may be differences of specialization. Production problems have been solved, costs are no deterrent, sales effectiveness has been amply demonstrated. It may be safely predicted that applied color lettering will see a wide expansion.

"So you think you're doing a good packaging job!"



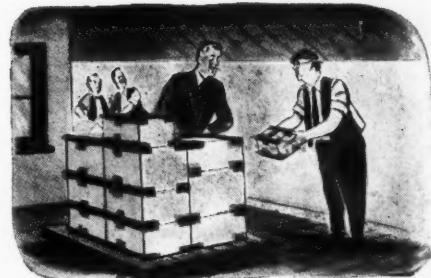
1. That's what our sales manager says when he starts giving me the riot act — about how some of our cartons arrived busted open, and how it nearly cost him a good customer. When he finally stops for breath, I take over —



2. "Listen, Big Shot. You're not tellin' *me* about shipping problems — I've been living with 'em for years. All shippers have the same headaches. But not us — not any more, at least. Look here — "



3. "See that wall chart? I call it our diploma. We got it last week from a supplier who came in and showed us a sound slide film — all about how to seal things **RIGHT** with gummed tape. It sure taught us *plenty* — "



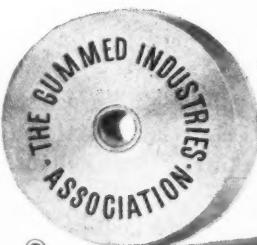
4. "Get a load of *this!* That's how packages *should* be sealed. Neat, strong, dust-tight, moisture resistant. And here's one for that customer of yours that nearly got away. He'll have no complaints when he gets *this* one!"



5. By this time, Big Shot begins to calm down. "Okay," he says. "I'm convinced. You keep on doing this kind of a job and we won't have any more trouble." Then he hands me a two-bit cigar — and we've been good pals ever since.



It was made for you — to be shown in your place of business, at your convenience — free of charge, and with no obligation. For complete information, simply write to the Gummed Industries Association, Inc., 19 W. 44th St., New York 18, N. Y.



SEAL IT **RIGHT WITH GUMMED TAPE**

THE GUMMED INDUSTRIES ASSOCIATION, INC.
19 West 44th Street, New York 18, New York

GOOD ADDRESS LABELS ARE GOOD ADVERTISING

Here's how to get advertising value from the labels you put on envelopes and packages that go to customers and prospects...

Ask us to submit individualized multi-color designs... Take your pick... The design you choose, printed in 2 or 3 smart colors, will cost just slightly more than an ordinary "sticker" that can create a poor impression of your company.

We'll print your labels in roll, pad or flat form on fine paper stock backed with an excellent adhesive.

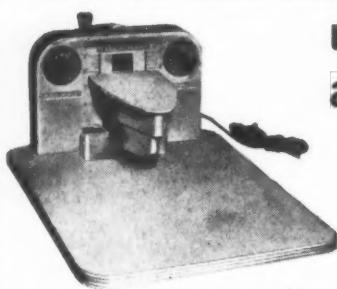
Write for samples and prices.

Miller AND Miller INC

136 MARIETTA ST.
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4006 PACIFIC AVE.
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**REDUCE hand-wrapping COSTS
up to 50%
and MORE**



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**cellophane
SPEEDSEALER**

Increases wrapping speeds up to double and more on flats, rounds, rectangles, tapers, cylinders, odd-shaped packages down to 1/16-inch thickness.

Five heat-sealing surfaces — AC-DC rheostat controlled—mounted on 16" x 21" base. Makes end-seals, band-seals, envelope wraps and special seals. Pays for itself in days with savings in time and materials.

For complete details and price list, clip this ad to your letterhead and mail to:

**Food Packaging Division
CHARLES F. HUBBS & CO.
385 Lafayette Street • New York 3, N. Y.**

Partial List of Uses	
FOODS	Fresh Meats • Fish Fillets • Cheese Cuts Delicatessen Items Bakery Goods • Pro- duce • Frozen Foods
TEXTILE & PAPER PRODUCTS	Sheets • Towels • Pill- ow Cases • Hand- kerchiefs • Napkins Table Cloths • Place Mats • Coasters Cups • Plates • Wrap- pings • Stationery
SUNDAY	Candy • Drugs • Cos- metics • Tobacco Hundreds of ad- ditional applications wherever cellophane wrappings are used.

West Coast Show supported

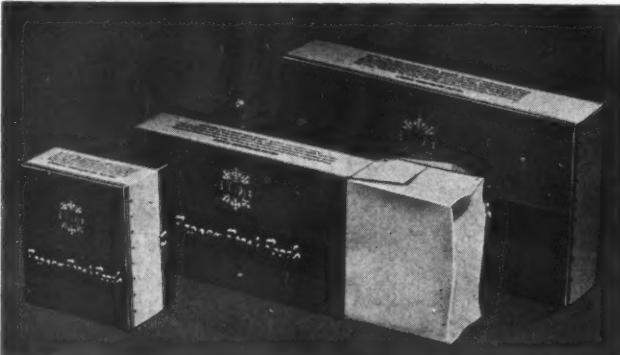
West Coast industry and business leaders—increasingly concerned with problems and developments in packaging, packing and shipping—are voicing strong interest and approval in the forthcoming First Western Packaging Exposition and the concurrent Conference on Packaging, Packing and Shipping. The four-day Exposition and Conference will be held in the San Francisco Civic Auditorium, Aug. 10 to 13, inclusive.

For the first time in the West, over 100 companies engaged nationally and regionally in the manufacture and distribution of machinery, equipment, materials, supplies and services in the fields of packaging, packing and shipping will exhibit and demonstrate their products or services, according to the Exposition management.

The Conference educational sessions and panel discussions will be led and addressed by leading authorities on Western trends and major problems in packaging, packing and shipping.

Home-use bag in cartons

The same type of bag-in-carton packaging used by many commercial frozen food packers has been made available for home freezing users in kits containing pint,



quart and two-quart sizes. The carton is made of bleached sulphite paperboard, manila lined. The inner wall has an extra heavy wax coating and a light paraffin coating outside which can be easily marked by stamping, pencil or ink. Special blank space is provided on carton ends for easy content identification. The ends have lock-end construction.

The bag is made of heavy-weight, wet-strength, plasticized, full-bleached paper. Special processing of the paper allows up to 3% expansion without rupture. A wax-rubber type coating on the bags gives it heat-sealing qualities in addition to providing a low water-vapor permeability rate. No brittleness is encountered at 0 deg., according to the manufacturer. Sealing temperatures can range from 180 to 400 deg. F. The bag is a gusset style with a glued side seam and heat-sealed, glued, turnover bottom seal. Retention of shape during filling is a feature of the bag which is particularly

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Lower costs — high adhesion — speedy production — high moisture resistance — these are just a few of the advantages of Findley's box glues. Moreover, there's a special formula for every stock and finish — assuring you of maximum results.

Your container is only as good as its seal. Findley adhesives assure freedom from destructive chemicals plus economy, versatility, and a permanent bond that means extra protection. Try Findley's for all-around better results.

No matter what the application — whether wet-strength treated, high finish stocks, vegetable parchments, cellulose films or cloth — there's a Findley specialty laminate designed to do the job — efficiently and economically.

Findley's extensive laboratory facilities are at your service — to help you maintain peak production and efficiency — or to develop special adhesives for special problems. All types available for every converting and packaging use.

ANSWER:

Findley's

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INDUSTRIAL
ADHESIVES

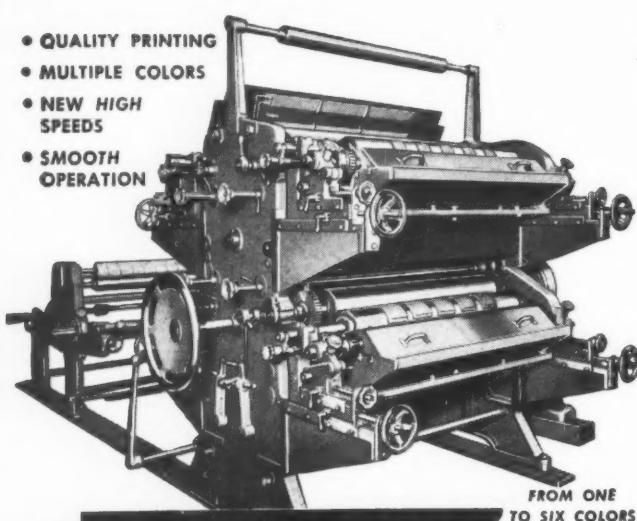
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Dallas, Houston, and Ogden, Utah.

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- MULTIPLE COLORS
- NEW HIGH SPEEDS
- SMOOTH OPERATION



ANILINE PRESSES

New designs and new presses to meet every production demand. Widths from 10 to 100 inches with from one to six color printing. Illustrated, is 4 color stack type press with center shaft rewind. Many other models now available. Write for further information.

HUDSON-SHARP
MACHINE CO. • GREEN BAY • WIS

DISTRIBUTORS WANTED

Throughout U.S. for

Revolutionary New Marking Pen



A
Feather-Mark
Product

Always fresh and ready
for instant use



Dries
Instantly

Automatic Cartridge feed carries its own ink supply in a sealed tube. Easily replaced when empty. Your hands never touch ink, and it cannot leak or damage valuable merchandise.

The patented automatic valve control feeds the right amount of ink to the marking point at the press of the button. It writes perfectly on anything—paper, textiles, wood, metal, plastics, glass—even wax. Indelible on any porous surface. Complies with all government regulations for marking devices.

Reasonably priced—liberal discounts

Write to

Lindstrom MFG. CO., INC.
MFRS. OF PRECISION MARKING DEVICES
173 Water Street, New York 7, N. Y.

convenient when wet fruits or vegetables are packaged. To aid in the filling operation, the kit includes a waxed paperboard funnel which fits into the bag opening.

In the pint-sized kit there are 15 complete cartons and bags; the quart-sized kit has 10 and the two-quart six. The kits are packaged in cartons, shipped to the jobber and retailer flat. Bags are available separately without cartons if the consumer wishes to re-use the outer cartons, thus cutting annual packaging costs.

CREDIT: Carton with bag (Freezlex), Marathon Corp., Menasha, Wis.

Air cargo angles

(Continued from page 141) handle pick-up and delivery in air service then require helpers. Furthermore, if heavy shipments are destined to or are leaving from small intermediate cities, on-time performance cannot be accomplished without an excess of manpower not justified by any other operational reasons.

A parallel problem that must be taken into consideration is the floor loading. Today, 100 lbs. per sq. ft. can be called the maximum. Proper skidding of unusual heavy shipments is a must. Top crating, other than a protective covering, is not necessary because when such shipments are loaded the floor-loading limits have been reached and nothing can be stacked on top. This applies to exclusive use of air shipment from origin to destination.

In connection with air cargo in general, the airline industry anticipates that one of its major traffic potentials of the future is in the field of perishable products. Already considerable research has been done with the fruit and vegetable growers and marketing organizations. From an operator's standpoint, we have been anxious to find out whether that traffic will require artificial refrigeration equipment built into the planes. Preliminary research indicates that this will not be necessary. Pre-cooling of bulk loads, plus use of insulated containers and of insulating blankets, will make it possible adequately to protect this type of cargo without adding the weight penalty of built-in refrigerating units.

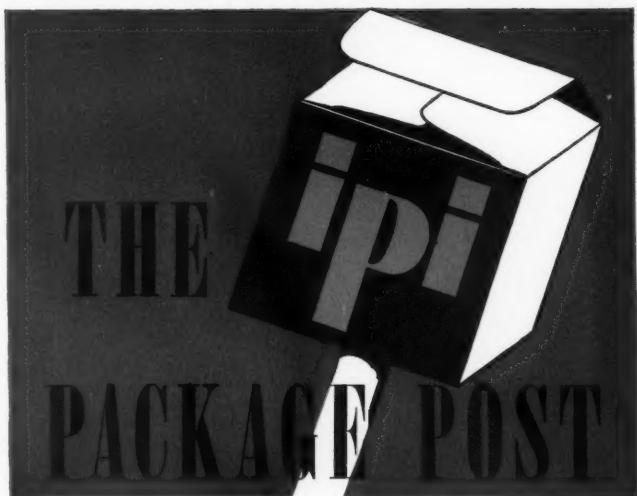
Air transportation is going to broaden the field of opportunity to combine advertising with packaging. In surface transportation, and particularly in the field of perishables, much of the packaging—because of the necessity for strength to stand rough usage—has not lent itself as an advertising medium. Usually, the outer package is thrown away on arrival. Since packaging for air can be lighter, we believe there will be an increase in the delivery of the product to the consumer in the same exterior package used during transportation. If research and study confirm this opinion, the product, the shipping package and the promotion will become a single sales unit.

Package Beauty Is Only Skin Deep



Did you ever think of how many packages owe their beauty and sales appeal in

large measure to the thin film of printing ink that decorates them? The more you think about it the more you realize that the selection of printing inks should be a part of package printing from the outset. That's the sure way to select colors which can be reproduced with printing inks resistant to handling, sunlight, moisture, and deteriorants.



INTERNATIONAL PRINTING INK • EMPIRE STATE BUILDING, NEW YORK 1, N. Y. • ADDRESS INQUIRIES DEPT. MP5

GOING TO PROVIDENCE? HAVE A HANLEY BEER— AND A LOOK AT THE CASE!

"Quality Guarded Since 1876" is a slogan of The James Hanley Co., of Providence, R. I., and it applies as much to the construction and printing of its red and blue, heavy duty bottle cases as to its ale and lager. Cases are made by the Container Corporation of



America, and are printed with IPI Vaposec inks. We wish you could see the brilliance of the colors, especially the blue!

WE THANK HONEY AND HANK

We're grateful to the N. Y. Herald Tribune for this cartoon by Seeg which so pleasantly accents the personal nature of reactions to color.

HONEY AND HANK



By Seeg

If It's Wise You'd Be— Try This Quiz, Number 3

Stoo-dents!

Are these statements true or false?

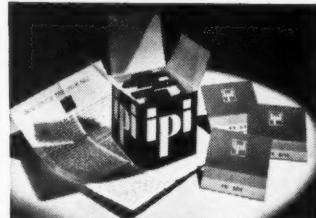
- With the Anilox system, ink distribution on aniline-type presses is subject to no variation regardless of press speed or ink viscosity.
- Accurate description of colors is necessary because people from childhood on develop personal ideas about color.
- You can obtain free a pocket file of 26 specimens of package colors. All statements are true; see stories below.



POCKET FILE OF 26 PACKAGE COLORS IS POPULAR SOUVENIR AT PACKAGING SHOW

"It's cute and useful, too." That remark sums up the many nice things people told us about the second edition of our Spectrum Box Souvenir at the A.M.A. Packaging Show in Cleveland.

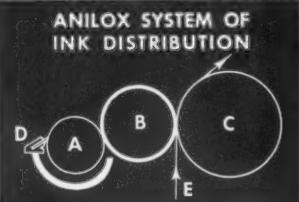
The colorful little box, 2½ inches square, houses a miniature file of 26 package colors printed on machine coated folding box board and patent coated board — 52 samples in all! Colors include reds, oranges, yellows, greens, blues, purples and browns—each marked with its A.S.A. specification. Also in the box is a folder of information about inks for packaging.



We prepared some extras of these color file boxes, but our supply is limited. Like one? Write early.

CONTROLLED DISTRIBUTION OF INK FEATURE OF IPI ANILOX SYSTEM

Basic idea of the IPI Anilox® system is to improve and control conditions on aniline-type presses to produce precision in ink distribution and



to hold this distribution constant regardless of press speed or ink viscosity.

To do this, we rebuild the press as shown. Cylinder (A) is a deep-etched, metal rotogravure cylinder whose recesses always take up an unvarying amount of ink. Excess is wiped off by doctor blade (D), and ink in recesses is transferred to plate cylinder (B). (C) is impression cylinder, (E) web.

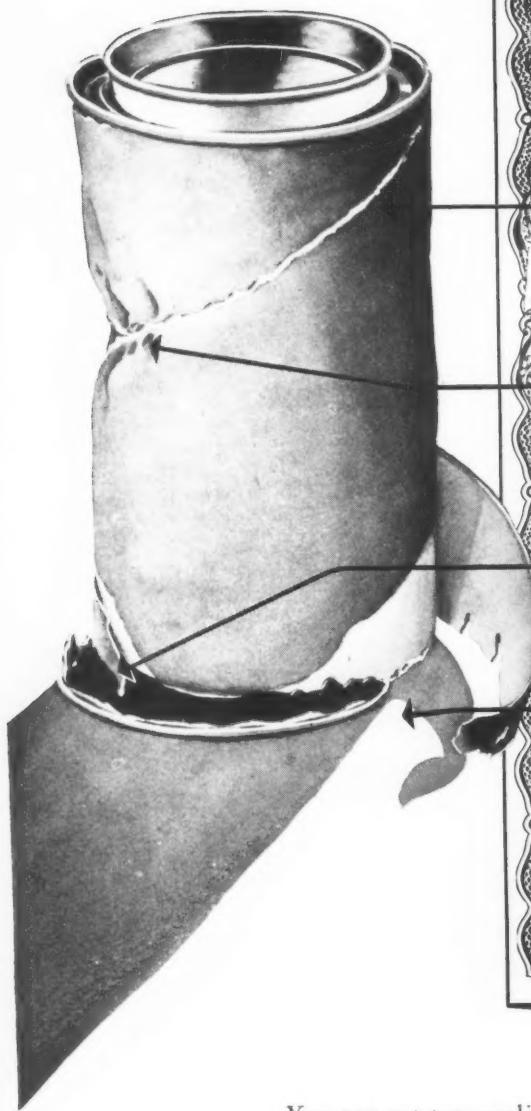
NOVEL PACKAGES MAKE AN "OPEN BOOK" OF McGREGOR SUN SUITS

The novel packages for McGregor "Sun Sets" sun suits which you see illustrated below are hinged in the middle so they will stand up together like an open book. The hinges are tabs on one box which fit into slots on the other box.

Boxes were designed by Mel Gussow, Director of Visual Merchandising for McGregor. They were produced by the Blum Folding Paper Box Co., Brooklyn, from a construction design by Mike Schwartz. IPI® inks were used, with specially formulated red and green producing the distinctive McGregor plaid.



Are your Containers Insured?



It's easy to get free insurance against the shortcomings shown here. How? . . . By ordering from Harcord. The explanation . . . we have the skills, the know-how and the special equipment needed to mass-produce low-cost, spiral and convolute containers that are free from these common faults. The captions tell the full story.

SPIRALS SHOWING

General indication of poor construction. Spiral-wound tubing made by Harcord has a smooth finish and is non-separating.

DENTED SIDES

Harcord-made spiral and convolute containers are engineered to correct specifications to eliminate this unsightly condition.

DEFECTIVE LABELLING

Harcord research assures the correct application of your label to obtain maximum sales-appeal.

LOOSE METAL PARTS

Complete coordination between skilled operators and machines plus rigid inspection checks eliminate this problem at Harcord.

You can get top-quality Harcord containers of spiral or convolute construction, either plain or printed with your label in striking, attractive colors. Write now for details and prices.

HARCORD MANUFACTURING CO.

A Division of the Meehan-Tooker Co.

152 BAY STREET • JERSEY CITY 2, N. J. • PHONE: DELAWARE 3-1212



Produced under Ivera-Lee
Patents Nos. 2121968—
2230849—2125321

*Always Safe.
Always Ready.*

Easily carried in handbag or vest pocket, Rexall Plenamins are always safe in METALAM packages. The lamination of transparent film and aluminum foil maintains contents as originally packed, yet is quickly opened. The brilliant foil serves as background for attractive printing for brand remembrance.

The advantages of lightweight, flexible METALAM have been well demonstrated for automatic packaging of many "thirsty" pharmaceuticals, dehydrated foods and beverages. These safety values are equally applicable to unit put-ups or to larger packages where complete, permanent protection is essential.

ASK US FOR IDEAS on applying METALAM to your products for protection and sales appeal—or for samples of bags and packages of cellophane and other films, or special laminations engineered to your needs. *The Dobeckmun Company, Cleveland 1, Ohio. West Coast Division, Berkeley 2, California.*

Branches: Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, San Francisco and Seattle. Representatives everywhere.

DOBECKMUN
► Self-selling packages in processed films and foils ◀

All classified advertisements payable in advance of publication. Rates: \$5.00 up to sixty words, enclosed in border, \$10.00 per inch.

Classified Advertisements

Publication reserves the right to accept, reject or censor a classified copy.

FOR SALE—One Johnson Automatic Cartoning Unit #1336, volumetric filling, 60 packages per minute—Price \$7,000.00. One Battle Creek Cellophane Over-Wrap Machine, SW-35, #1435, 60 packages per minute—Price \$900.00. One Doughboy Rotary Sealer and two foot crimp sealers. For immediate inspection and delivery. Box 672, Modern Packaging.

FOR SALE: Wrapping Machine, American Machine and Foundry Model 3-22. Takes packages up to 21" length. Perfect condition. R. G. White Engineering Company, 1338 Atlantic Avenue, Brooklyn 16, N. Y.

FOR SALE: Conveniently located small modern laminating and coating business. Equipped to laminate foil, acetate, vinyl, paper, cloth, etc. Latest high speed coating and drying devices, electric hoists, sheeter, slitters, embosser, reverse roll, rotogravure, roller, knife, spray and hot melt coaters. Potential capacity \$3,000,000.00 to \$5,000,000.00 annually. Sale price \$300,000.00 including buildings, formulas and confidential data. Principals only. Box 671, Modern Packaging.

FOLDING BOX Salesman wanted, who would appreciate connection with well-rated progressive company in the East. Manufacturing every type folding box. Liberal commission arrangement affording lucrative position. Box 673, Modern Packaging.

I—WORLD "STRAIGHTAWAY" automatic labeler. 2—Arenco automatic tube filters, stainless construction. 1—Kiefer visco cream filler. Write Dept. M. Chemical & Process Machinery Corp., 146 Grand Street, New York 13, N. Y. Worth 4-8130.

FOR SALE: two nearly new Amesco automatic bag weighing and filling machines with conveyor and rotary heat sealing machine. Box 674, Modern Packaging.

WANTED:—Sales Promotion Manager with practical selling experience and broad knowledge of packaging field, to promote sale of molded plastic containers for midwest manufacturer. Good opportunity for man with ambition and imagination. Box 676, Modern Packaging.

FOR SALE: 2000 lbs clear cellophane 3 1/2" wide, 600 lbs colored cellophane 3 1/2" wide, 1000 lbs clear cellophane 3 1/4" wide, all in original Du Pont cartons. Box 677, Modern Packaging.

FOLDING CARTON manufacturer's opportunity!

Memo: From a sales representative to an AAAA rated folding carton converter with own board mill. This Message: If you can produce a clean quality board—.016 Single Manila lined News Back—and can allot approximately 400 tons per month, print and convert a quality product, compete and service against genuine competition; you have an excellent opportunity for adding an AAAA nationally known organization on your books as a steady account through an exclusive sales arrangement by writing (promptly please) to Box 678, Modern Packaging.

WANTED—YOUNG man—24 to 27 years of age—college training preferred—sales experience in the packaging field desirable but not necessary—to be trained as a salesman for a pharmaceutical packaging service company located in Northern New Jersey—excellent opportunity for the right man. Write fully giving detailed information to Box 679, Modern Packaging.

PACKAGING ENGINEER Wanted—A large midwestern company seeks the services of a graduate engineer with at least five (5) years' experience in packaging in glass or metal containers and who understands the equipment involved. Assignments will include origination of packaging layouts and improvements of existing operation. Must be willing to travel. Write Box 667, Modern Packaging.

SALESMEN: PREFERABLY with experience selling laminated and coated products such as are listed in our advertisement in this issue of Modern Packaging. Excellent territories available to right parties. State qualifications, age, experience and territory covered in first letter. Also if interested in salary or commission and amount. Floyd A. Holes Company, Bedford, Ohio.

MANUFACTURER OF dry product filling equipment seeks manufacturer's Agents or Dealers in the States of: Arizona, California, Colorado, Connecticut, Delaware, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia and Wisconsin. Give full information and references first letter for consideration. Commission basis. Box 682, Modern Packaging.

FOR SALE—5 used Pneumatic Scale Duplex Labeling Machines; 4" centers, capacity 120 bottles per minute. Excellent condition. Located Oakland, California. King and Anderson, 444 Market Street, San Francisco, California.

I'M SEEKING a Folding Box Manufacturer whose standards of production assure well-made retail cartons accurately printed in colors, with capacity to absorb additional business in volume. Sole or special representative New York and vicinity. Not a sales novice. Seasoned, diversified packaging and printing expert familiar with national accounts. Commission. BArclay 7-8167. Box 675, Modern Packaging.

PACKING ENGINEER, M.E. graduate with 25 years successful development, construction and installation of special production machinery and process equipment seeking change. Will consider executive engineering position with progressive manufacturer of food, drugs or cosmetics who is vitally interested in increasing efficiency through mechanization of manual operations, installation of modern equipment and improvement of factory layouts. Box 680, Modern Packaging.

FOR SALE—Three CECO Box Sealing Machines, adjustable for various sizes, extra long compression unit and feeding unit, first class shape. Box 681, Modern Packaging.

WANTED PACKAGING salesman to sell Weinman Transparent Plastic Boxes in certain territories. Commission basis. Mention territories covered and lines now selling. Weinman Bros. Inc., 325 N. Wells St., Chicago 10, Ill.

WANTED—REPRESENTATIVES for manufacturer of plastic point-of-sale displays and edge lighted plastic signs. Prefer man already calling on trade with non-competitive line. P. M. D. Corp., 23 West Maryland Street, Indianapolis, Indiana.

FOR SALE: Equipment for producing Acetate Containers. Taber Duplex Beader, Creaser, Stamping Press, Carver Hydraulic Laboratory Press and sundry equipment. All practically new. Write Box 686, Modern Packaging.

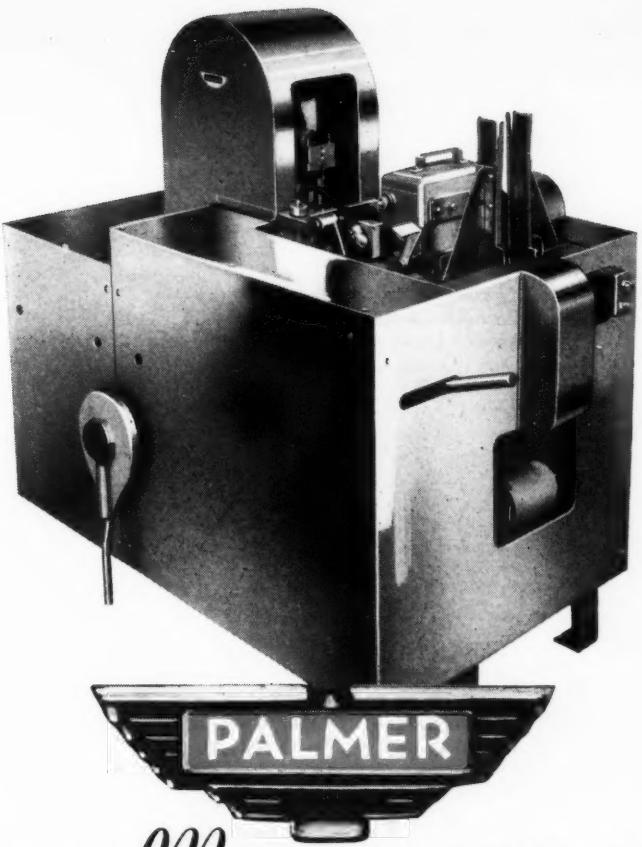
EXPERIENCED FOLDING Carton Sample Maker. Excellent opportunity with large national manufacturer located New York City. Replies confidential. Our employees know of this ad. Box 683, Modern Packaging.

FOR SALE: Paper bottle machine which makes, paraffins, fills, and clip closes a quart size bottle. Fully equipped with motors and boiler for paraffin heating. Box 684, Modern Packaging.

SALES MANAGER available. Excellent record of ferreting out the places where business can be found coupled with sound knowledge of production in acetate containers, folding cartons and injection molding and fabricating of plastic industrial parts. Ability to design consistent with production limitations included in the same package of energy, versatility, tact and original thinking. Experience over the past sixteen years includes administration and advertising along with sales management. Age 43. Free to locate wherever opportunity is most interesting. My associates know of my intentions. Your reply will be held in confidence. Box 685, Modern Packaging.

FOR SALE: Automatic Package Waxing Machine. Complete with variable speed conveyor, wax pump and heating elements at all points. Will take packages automatically from package line and deliver them coated. Can be used for any liquid coating. Used one year. Cost new \$6,000.00. Will sacrifice. Write Box 662, Modern Packaging.

SALES MANAGER—aggressive experienced in field of coatings, hot melts, and emulsions for paper converting. Excellent opportunity with established wide awake company. Experience in printing inks, organosols, cloth coatings helpful but not essential. Excellent salary and bonus arrangements to the right man. Do not apply unless you know the industry and its requirements thoroughly. Box 687, Modern Packaging.



Continuous Motion CARTON FORMERS

deliver complete cartons from standard blanks—in almost any size—with plain sides, with turned over end flaps, with turned over side flaps, attached covers or a combination—automatically and continuously at practically any speed your needs demand.

*producing more packages efficiently
in less time, at less cost per package, to
give you a profitable advantage in an
increasingly competitive market*

WRITE TO

FRANK D. PALMER, Inc.

528 N. Western Ave. • CHES. 3344 • CHICAGO 12

PACKAGING MACHINERY MANUFACTURERS

MODERN PACKAGING ADVERTISERS

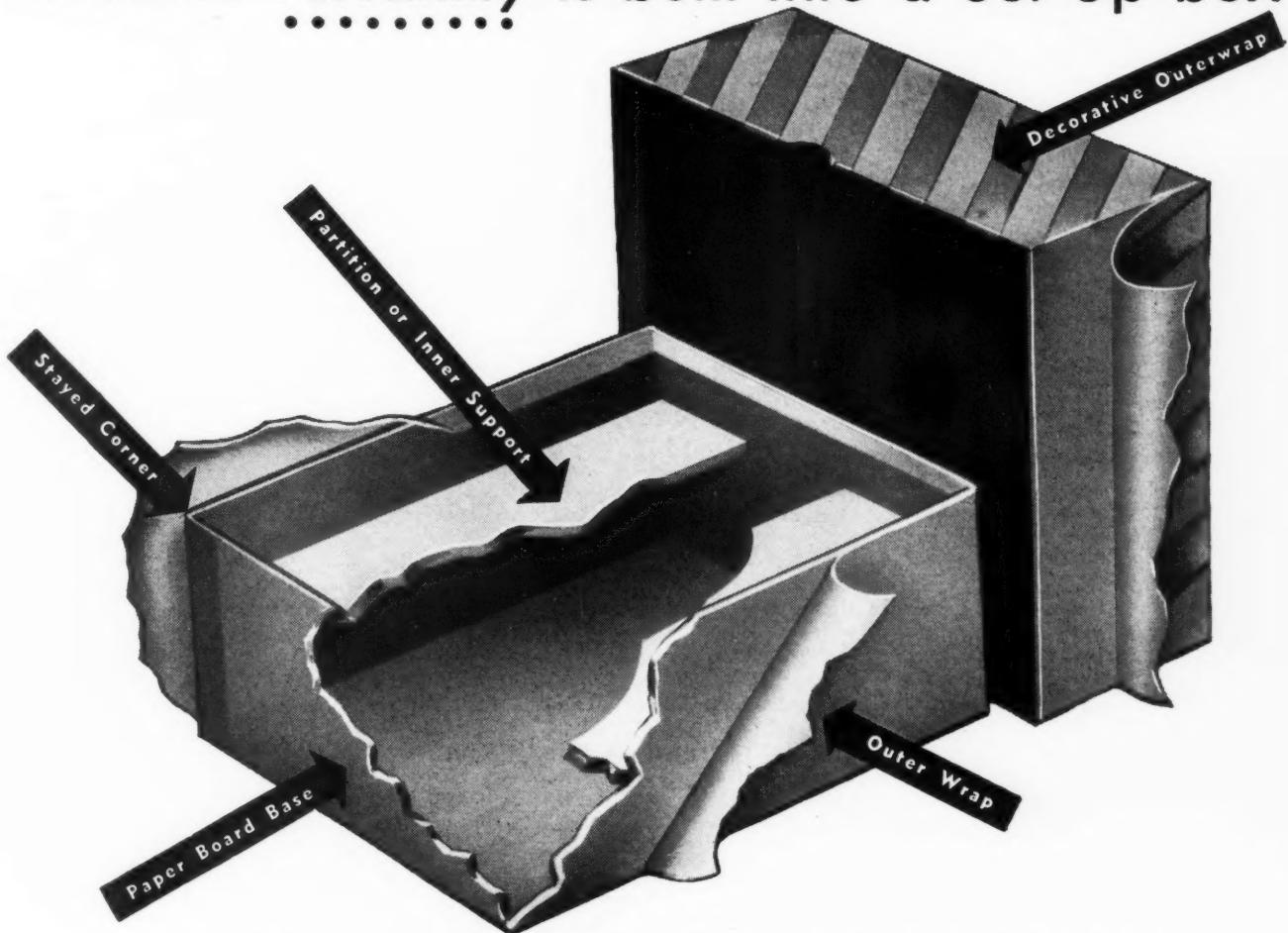
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CASH REGISTERS

RING

because *versatility* is built into a Set-Up box



Yes, and here are some of the profit-building features which this versatility includes:

SALES APPEAL — The wide variety of paper wrappers, embossing effects, colorful designs and larger display areas of a set-up box assure brand identification and added selling punch at the point of sale.

PRODUCT PROTECTION — Fashioned of sturdy craftboard and reinforced with product supports and stayed corners, the set-up box offers extra product protection. This feature

effects great savings by drastically reducing the costs of replacing damaged goods.

PACKAGING EASE — Custom built to your product, regardless of its size or shape, the set-up box offers easier and better packaging.

PACKAGING ECONOMY — From assembly line to sales line, your direct packaging costs are less with set-up boxes because they give you so much for your money.

See your nearest set-up box manufacturer today.

NATIONAL PAPER BOX MANUFACTURERS



AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia 7, Penn.

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